

# **THE PRIMARY HEALTH WORKER**



**WORKING GUIDE**

**GUIDELINES FOR TRAINING**

**GUIDELINES FOR ADAPTATION**

*EXPERIMENTAL EDITION*

WORLD HEALTH  
ORGANIZATION  
GENEVA

This work was first issued, under a different title, in 1974 as WHO working document HMD/74.5. After field tests, a revision of that document was issued in 1976 under the present title, but the stocks were rapidly exhausted. In view of the demand, and of the importance that the World Health Organization attaches to primary health care, it was thought useful to make this work more widely available by publishing the present "experimental edition".

is experimental in that the Organization is seeking what improvement may be made in primary health care by publishing a guide in a form intended for adaptation to conditions in different countries or communities rather than for general adoption without modification. The text and drawings of the 1976 working document are deliberately reproduced with no change or editorial revision so that this publication should not have a highly polished appearance that might create the impression that it is a definitive manual.

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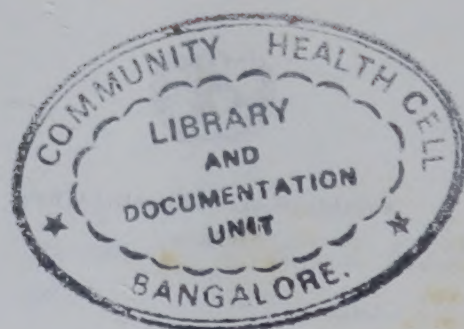
GENEVA

1977

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WORKING GUIDE

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## Do not forget that :

THIS WORKING GUIDE IS AN EXAMPLE  
OF THE PROBLEMS THAT THE PHW MAY  
FACE DURING DAILY WORK.

THE PROBLEMS, THE TEXT AND THE  
DRAWINGS SHOULD BE **ADAPTED**  
TO THE SPECIFIC CONDITIONS OF EACH  
COUNTRY AND EACH COMMUNITY IF THE  
GUIDE IS TO BE OF USE IN THAT  
COUNTRY OR COMMUNITY.





## INTRODUCTION

Only a few countries in the world have been successful in developing their health delivery network so as to achieve a wide coverage of their population. Although there are variances between different successful country schemes, several common features exist. For instance, in each country or area the government started with the formation, reinforcement or recognition of a local community organization and treated it as a "partner" in this enterprise. This partner appeared to have five functions. It laid down the priorities; it organized community action for problems that could not be resolved by individuals; it controlled the primary health care service by selecting, appointing or "legitimizing" the primary health worker; it assisted in financing services and/or in sharing the labour involved; and it linked health action with broader community goals.\*

Another feature that is common in successfully operated schemes is the fact that any system of primary health care was either linked with the indigenous system or had built into it some social qualities from the old system. In this sense the new did not destroy the old, but built upon it, and the link between the past and the present was a socially relevant change. Furthermore, known country examples exhibit political orientation favouring equitable distribution of welfare among the masses and health development is viewed as part of the overall community development.

Another common element is the use of a primary health worker who is not necessarily a member of the conventional health service staff, i.e. a doctor or a nurse. This person is frequently a villager selected by the community and trained locally (in some cases for as little as 2-4 months initially). He can be an unpaid volunteer, or a person partially or totally supported by the official health services or by the village people in cash or kind with responsibilities for aspects of promotional, preventive and curative health.

\*

Newell, K.W. Health by the people Geneva. World Health Organization, 1975, p. 193

This should naturally include government approval and promotion of the community health scheme as well as support to its functioning, including proper legislation, training, supervision, referral facilities, funds, stocks and means of supply. One of the government's main duties is then to organize adequate training of its health workers at various levels of health care delivery, and to provide on-the-job technical guidance and continuous learning opportunities.

This working document deals with examples of the learning content and structure for the primary health worker and ways of teaching.

Part I can be used by the primary health worker as a learning text and also as a working guide while he is performing. Part II is addressed to teachers, tutors and supervisors of this health worker. Part III only outlines the needs and means for adaptation to local conditions, in view of the fact that this can only be done at country level.

Before drafting learning material for application in real-life situations several prerequisites should be fulfilled. Task analysis has to be carried out and job descriptions written. These must be preceded by an analysis that includes specific country ecology, health conditions, and existing health service systems and potentialities. As the present document is just an illustration of what can be done, the WHO Working Group based itself on some general assumptions common to many areas of developing countries with similar socio-economic conditions. It was furthermore assumed that the purpose was to satisfy the minimal needs for community health and social well-being with modest resources in places insufficiently covered by a health infrastructure, official or private.

This working document is therefore unspecific and requires adaptation before use in a given country with specific needs, structures and potentialities.

### The Primary Health Worker (PHW) profile

#### Who is he?

The PHW is a man or a woman who can read and write and is selected by the local community authorities or with their agreement to deal with the health problems of individual people and the community.

#### Who will he report to?

The PHW will be responsible both to the local community authorities and to a supervisor appointed by the official health services of the country.

The PHW will be paid (in cash or in kind) by the local community for his work, which may be full-time or part-time depending on requirements.

The local community will give him a hut or a room to be used only for his health activities.

The PHW will follow the instructions given him by his supervisor and will work in a team with him.



What training will he receive?

The PHW will receive an initial period of training of six to eight weeks from the official health service of the country. His training will be of a practical nature and will be given near his home. Preferably, his supervisor should give the instruction and be responsible for his continued on the spot or cyclical training. A plan for this further training should be worked out.

What will he do?

The work of the PHW will cover both health care and community development, as man's health and that of the community in which he lives is so much affected by any improvement in the quality of his environment.

The health work of the PHW will be restricted to what he has learnt. The PHW must realize his limitations and be aware that there is only a restricted number of things he can do. He will not be able to solve all the problems he meets, but it is hoped that he will be able to help in dealing with the most common and most urgent ones.

The community development work of the PHW should serve to encourage the local authorities and the people to show initiative and take interest in any activity likely to improve living conditions in the community. He should first consider what can be done locally with the community's own resources at the least possible cost.

The PHW's duties will depend on the problems he meets. These will vary from one country to another and it is impossible to draw up a list of problems that will be valid throughout the world.

It is assumed however that some common problems and concerns will be found everywhere. This assumption has led the WHO Working Group to select the problems included in Part I on the basis of the following criteria:

- frequency of disease
- demand from the public
- danger to the individual
- danger to the community
- technical feasibility of action for a PHW
- economic consequences of the "problem".

From the problems selected, which make up Part I of the present document, it is then possible to have an idea of what a theoretical PHW could do:

1. care for the health of the inhabitants and look after community hygiene
2. give care and advice, in accordance with the instructions written down in the guide or given by his supervisor, to anyone who consults him



3. send patients to the nearest health centre or hospital in any case in which the guide instructs him to do so (evacuation or referral) and in any case not covered by the guide. The PHW should therefore confine his care and treatment to those cases, conditions and situations described in the guide
4. with authorization from the local authorities, visit all dwellings and give those living in them advice on how to prevent disease and learn good habits of hygiene
5. make regular reports to the local authorities on the health of the people and on conditions of hygiene in the community. Get the local authorities and the people to give him the help and support he needs for his work
6. keep in as close contact as possible with his supervisor so as to be able to give of his best in his work and to obtain the equipment and supplies he needs
7. promote community development activities and play an active part in them.

This assumes that the PHW:

- a) is available any time of the day or night to respond to any emergency calls
- b) acts in all circumstances with common sense and devotion to duty and in awareness of his limitations and of his responsibilities
- c) does not leave the community without first informing the local authorities
- d) takes part in the periods of training organized by the health service.

The PHW may spend some time with other social/developmental workers involved in improving agricultural practices, preservation of food, water supply, house economics, etc. He must know about developmental opportunities in his district and keep his community properly informed.

It follows then that the PHW is the practical expression of a community's determination to be involved in its own health care and to make up for any deficiencies that might exist in the Health Service coverage. The PHW should improve the community's involvement in what will be part of an overall provincial/national health project planned and implemented by the national Health Service authorities with the active contribution of the people.



**Do not forget that :**

SEVERAL PHWs MAY WORK AS A  
TEAM IN THE SAME VILLAGE AND IN  
CONJUNCTION WITH THEIR SUPERVISOR.

CERTAIN PROBLEMS AND CERTAIN  
TASKS MAY BE CARRIED OUT BY A  
MALE PHW AND OTHERS BY A FEMALE  
PHW, DEPENDING ON THE WISHES OF  
THE COMMUNITY, ITS HABITS AND ITS  
MEANS.



# PART I



## Working Guide





## Do not forget that :

A PRIMARY HEALTH WORKER (PHW) SHOULD NOT PRACTISE IN ISOLATION. HE SHOULD BE A PART OF A HEALTH SYSTEM AND AS SUCH BE REGULARLY SUPERVISED AND HE SHOULD KNOW WHERE AND WHEN TO SEEK GUIDANCE, AND TO REFER PATIENTS WHO ARE SERIOUSLY ILL, OR WHOSE ILLNESS IS BEYOND HIS COMPETENCE TO TREAT.



This Working Guide - once adapted to local conditions - is primarily intended for the PHWs who will use it, first during their training period and secondly as a reference book when working in their community. Obviously, the trainers and supervisors of PHWs also have to be very familiar with it in order that their advice, guidance and instructions can be easily understood and recognized as having been previously learned by the PHWs.

33 problems (or upsetting conditions) are dealt with in this Working Guide. These 33 problems are considered to be the most common ones and therefore the most likely to be found in any given rural community. In fact, only 32 problems have been detailed since Problem 1.1 "Vaccinations" has only been mentioned as a reminder, for it should be considered in the context of a national programme. These 33 problems have been grouped under seven main headings:

1. Communicable diseases
2. Maternal care
3. Child health. Nutrition
4. Accidents
5. Village and home sanitation
6. Other common requests
7. Community development.

Each problem begins with a few words of explanation which are followed by a special page of "learning objectives" where what the PHW should know after he has studied the problem is stated. In each case, preventive measures are suggested and simple curative action indicated, when possible, otherwise referral to the health centre or the hospital is necessary.

Annex 1 gives the list of medicines used in this Working Guide, how they should be administered and the doses to be given according to age. It is extremely important to review this list and to adapt it to local usage.

In Annex 2 a few techniques are described, namely: anal temperature taking, intramuscular and subcutaneous injections and examples of bandages. Other techniques are given within specific problems, such as how to clean a wound or how to build a stretcher, their list and reference are given on page 256.

The anatomical diagrams which appear in Annex 3 may facilitate the work of the trainers of PHWs when they need to answer questions on human anatomy or physiology.

Problem 1.1  
VACCINATIONS

# VACCINATIONS

*When germs attack our body, we catch diseases which make us feverish.*

*IN ORDER TO PROTECT AGAINST THE DISEASES<sup>\*</sup> caused by germs, healthy people are given injections (vaccinations) with drugs known as VACCINES, which protect the body and fight any germs which may enter the body.*

*If it is decided to vaccinate the inhabitants of your community, you will be informed by your supervisor who will give you the necessary instructions. This problem is not detailed any further because it should follow the standing orders set up in the context of national programmes.*

---

<sup>\*</sup> *TO CURE people who are already ill, other drugs are given to the patients, such as Penicillin, Chloroquine and Sulfadiazine, which kill the germs that have already entered the body.*



# FEVERISHNESS

---

A PATIENT IS FEVERISH WHEN HIS TEMPERATURE IS OVER  $37^{\circ}.5$  C.

A CHILD UNDER SCHOOL-AGE WHO HAS A TEMPERATURE OVER  $38^{\circ}$  MAY BE VERY ILL. ALWAYS GIVE HIM ASPIRIN IN ADDITION TO THE TREATMENT FOR HIS ILLNESS, AND TELL HIS MOTHER TO GIVE HIM A LOT OF LIQUIDS TO DRINK, BECAUSE FEVERISHNESS, LIKE DIARRHOEA, MAKES THE PATIENT LOSE A LOT OF WATER.

---

FEVERISHNESS

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. decide whether a patient is feverish or not:
  - 1.1 take a temperature
  - 1.2 read a thermometer
2. identify three signs that indicate, when examining a patient, that he is feverish
3. treat a patient who is feverish but has no other signs, the treatment depending on the patient's age
4. list five conditions where the patient must be sent to the hospital or health centre
5. send to the hospital or health centre any feverish patient with either of the five previous conditions.

# A PERSON BECOMES FEVERISH

each time the body is attacked by little living animals known as germs which are so small that they can only be seen with the help of a powerful glass.

Germes live everywhere around us: in the air, in the ground, in the water. They get into our body through any door:

- through the nose with the air that we breath,
- through the mouth with what we eat and drink,
- through the skin:
  - when we hurt ourselves
  - when a mosquito bites us
  - when a dog bites us ...

## TO PROTECT THEM AGAINST GERMS

TEACH THE PEOPLE LIVING IN YOUR VILLAGE:

TO EAT WELL AND WASH FOOD BEFORE COOKING,

TO DRINK CLEAN WATER OR OTHER FLUIDS,

TO WASH PROPERLY,

TO PROTECT THEMSELVES AGAINST MOSQUITOS, FLIES, ...

IN CASE OF FEVERISHNESS CARRY OUT THE FOLLOWING INSTRUCTIONS:



THE NOSE IS RUNNY



This patient's neck is STIFF



This patient's neck is not STIFF



This patient has CONVULSIONS



FEVERISHNESS

Ask:

For how long has the patient been feverish?

1. IF HE HAS BEEN FEVERISH FOR LESS THAN A WEEK

Ask if:

1.1 It started with a runny nose. Take his temperature, see page 240.  
see "The patient has been coughing or spitting for several  
days", page 29.

1.2 If not, it did not start with a runny nose, either:

1.2.1 The patient is feverish and nothing else.

Always give Chloroquine (see page 237)

If the patient is a child under 5 years old, give Aspirin  
(see page 237)

or:

1.2.2 The patient is feverish with other signs

- a) either, his neck is stiff (see drawing)  
or, he does not move and does not answer when spoken to  
or, he has convulsions ( he does not answer and sometimes makes  
violent movements with the whole of his body or part of  
his body: face, arms, legs)  
or, he is constantly vomiting.

Give him an injection of Penicillin (see page 238), and  
send him immediately to the hospital or the health centre.

- b) Or else, if he has diarrhoea, belly pains, spots on the skin,  
pain in the joints ...

See in that case the corresponding problems.

2. IF HE HAS BEEN FEVERISH FOR MORE THAN A WEEK

Send the patient to the hospital or the health centre.

---

Problem 1.3  
DIARRHOEA

# DIARRHOEA

---

TO HAVE DIARRHOEA IS TO HAVE AT LEAST 3 LIQUID STOOLS  
PER DAY.

WHEN SOMEONE HAS DIARRHOEA, HE RAPIDLY LOSES WATER, SALT  
AND STRENGTH.

TO TREAT DIARRHOEA IS TO GIVE THE PATIENT WATER AND  
SALT AND TO TELL HIM TO EAT AS USUAL IN ORDER NOT TO LOSE  
STRENGTH.

---

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. decide whether a patient has diarrhoea or not
2. recognize four major signs usually found in a person with a diarrhoea that indicate he should be sent to the hospital or health centre
3. give fluid treatment
4. show a mother whose child has diarrhoea how she should prepare and give fluid, and take care of her child
5. identify four ways in which one may get diarrhoea
6. give the necessary advice to an adult with diarrhoea
7. demonstrate to the community how to prevent diarrhoea
8. send to hospital or to a health centre any person with diarrhoea:
  - 8.1 which is accompanied by dehydration
  - 8.2 which does not respond to treatment.



DIARRHOEA

YOU GET DIARRHOEA

- because you eat with dirty hands (after working or after going to the toilet),
- because you eat dirty food (badly washed, left outside or in a warm place for too long, not protected against flies and animals),
- because you eat certain foods which have not been cooked for long enough,
- because you drink water which is not clean (from a pond, a river, a spring or a well which are not protected, water which has been kept in a dirty container),

TO AVOID DIARRHOEA IN YOUR COMMUNITY TELL AND SHOW

THE INHABITANTS HOW TO:

EAT CLEANLY

DRINK CLEANLY

PROTECT THEMSELVES AGAINST FLIES AND ANIMALS

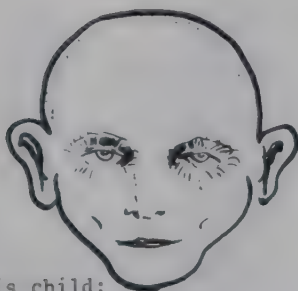
IF THERE IS A CASE OF DIARRHOEA (WHICH HAS NOT BEEN  
AVOIDED) TELL THE PATIENT AND HIS FAMILY ONCE AGAIN  
THAT THEY MUST

EAT CLEANLY

DRINK CLEANLY

PROTECT THEMSELVES AGAINST FLIES AND ANIMALS

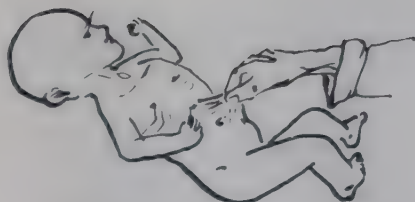
AND CARRY OUT THE FOLLOWING INSTRUCTIONS:



Look at this child:  
his eyes are sunken in  
his head, his cheeks  
are hollow and his  
mouth is dry.



Look at this other child.  
Is he different?



PINCH THE SKIN



THE SKINFOLD REMAINS

Examine the patient who has diarrhoea,

FIND OUT IF HE IS DEHYDRATED:

- his eyes are sunken in his head?
- his mouth is dry and his tongue dry and red?
- a fold remains for a few seconds on the skin after you have pinched it?
- it is difficult to feel the pulse on the wrist? is it above 130? (see page 255)

IF SO

BE CAREFUL: The situation is serious because the diarrhoea makes the patient lose water and salt: he may die, and in those regions where there is cholera, he may even die within a few hours.

Send the patient immediately to the hospital or the health centre, but meanwhile make him drink water with salt and sugar or, if you have any, a specially prepared liquid against diarrhoea.

IF NOT, there are two possibilities:

1. NO, the patient has not got a fever, there is no blood and no mucus in the stools

- 1.1 The patient should continue to eat as usual

If the patient is a child, see "The Well-fed child" page 79,

If the patient is an adult, tell him to avoid only spicy foods.



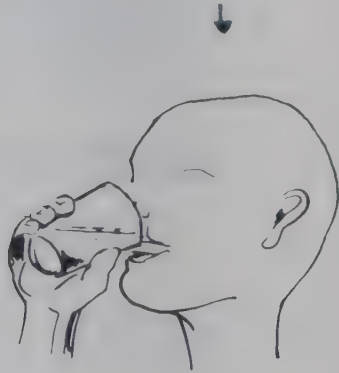
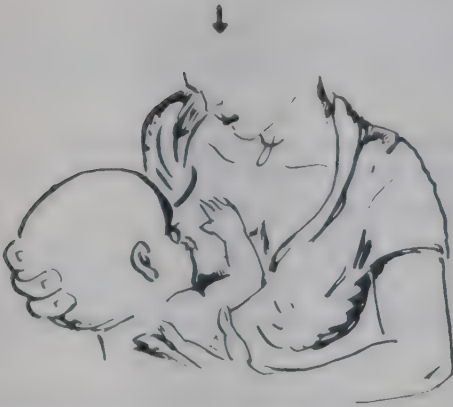
WHEN HE HAS DIARRHOEA CONTINUE TO

GIVE HIM SOMETHING TO DRINK

like this

or

like that



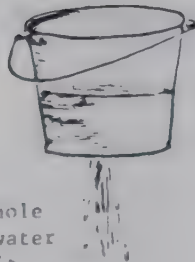
WHY?

Because if the BODY LOSES ALL ITS WATER,  
like a bucket with a hole in it, it will die.

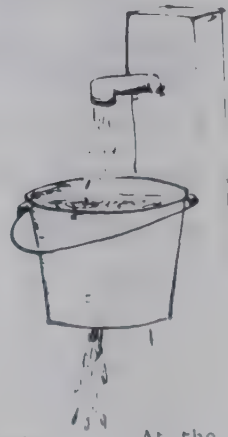
This bucket is  
full of water



if the bucket has a hole  
in it, it loses its water  
(like the body when it  
has diarrhoea)



The bucket is full of  
water again, because water  
has been put in it



At the same time, it  
should be treated and  
repaired

## DIARRHOEA

### 1.2 The patient must drink a lot of liquid

If a patient has diarrhoea, he loses water and salt, and if he loses too much, he may die. He must therefore be given more salt and water.

If you have no packets for preparing the special liquid against diarrhoea, prepare the following liquid yourself:

In a clean litre bottle (see drawing) put:  
a pinch of salt,  
a handful of sugar,  
a litre of clean water (boiled if possible).

Show the patient or the patient's mother how to prepare this bottle.

If you have packets to prepare the special liquid against diarrhoea, you should:

In a clean litre bottle (see drawing) put:  
the contents of one packet,  
one litre of clean water (boiled, if possible).

Be careful: Do not boil the water once you have put the contents of the packet in it.

The special liquid against diarrhoea should be given to the patient on the very day it is prepared.

SEE the patient again on the third day:

If the diarrhoea has stopped, tell the patient to eat as usual.  
If the patient is a child, see "The well-fed child", page 79

If the diarrhoea continues, send the patient to the hospital or the health centre.

### 2. NO, but the patient has a high temperature (over 38°) or blood and mucus in the stools

If you have some Tetracycline:

the patient should eat as usual (see 1.1)

the patient should drink a lot of liquid (see 1.2)

but in addition he should take tetracycline (see page 239)

FIRST OF ALL,  
BOIL SOME WATER



THEN,  
DO THIS



WATER

+



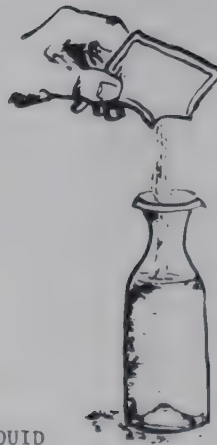
SALT

+



SUGAR

OR THIS



TO PREPARE SOME LIQUID



DIARRHOEA

If you do not have any tetracycline:

Send the patient to the hospital or the health centre, but in the meantime make him drink a lot of liquid, either water with salt and sugar, or the special liquid against diarrhoea.

SEE the patient AGAIN on the third day:

if the diarrhoea is better or has stopped, advise the patient to stop taking tetracycline and to eat as usual.

If the patient is a child, see "The well-fed child" page 79

if the diarrhoea continues, send the patient to the hospital or the health centre.

BE CAREFUL: If, in the same week, you see at least 5 patients with diarrhoea, see "Epidemics", page 32.

---

# RESPIRATORY DISEASES

---

WHEN YOU HAVE A RESPIRATORY DISEASE, YOU COUGH, AND WHEN A PATIENT COUGHS, HE SPREADS LITTLE DROPS OF PHLEGM INTO THE AIR AND THE PEOPLE WHO LIVE VERY CLOSE TO THE PATIENT BREATHE IN THIS AIR WHICH IS NOT CLEAN, AND THIS IS HOW YOU CATCH CERTAIN CHEST DISEASES.

A PATIENT WHO HAS BEEN COUGHING OR SPITTING FOR YEARS MAY PASS ON SERIOUS DISEASES TO OTHER PEOPLE.

---

## RESPIRATORY DISEASES

### LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. examine and find out from a patient if he has a cough
2. list two signs of mild ( $- 38^{\circ}$ ) respiratory infection
3. treat a patient who has had a cough for some days with or without a temperature
4. list four signs of more serious respiratory infection ( $+ 38^{\circ}$ )
5. treat patient with a temperature of more than  $38^{\circ}$  with Penicillin or Sulfadiazine
6. treat a child who coughs occasionally but turns blue and vomits
7. decide when to send patient to hospital or health centre:
  - 7.1 any person who has had a cough for some days and is feverish but has not got better with treatment
  - 7.2 any child less than six months old with an occasional cough who becomes blue and vomits
  - 7.3 any patient who has had a cough for several weeks or several months,  
who spits blood,  
who has difficulty in breathing at night or when walking,  
who has pains in the chest,  
who coughs up foul-smelling phlegm
8. list three activities to prevent respiratory infection when giving advice to the community.

RESPIRATORY DISEASES

YOU CATCH MOST RESPIRATORY DISEASES

- because you live with people who are coughing and spitting; they are more serious for young people and people who are badly fed, who are weaker and may die of them,
- because you are not warmly dressed during the daytime or not properly covered at night when it is cold.

IN ORDER TO AVOID RESPIRATORY DISEASES IN YOUR VILLAGE, TELL AND REMIND THE PEOPLE THAT:

- they should dress warmly when it is cold
- they and especially their children should eat well
- they should not cough on other people or children; they should not spit on the floor, especially in the house or in the hut. They should spit into a handkerchief, into a box or anything else which can be washed or burnt.

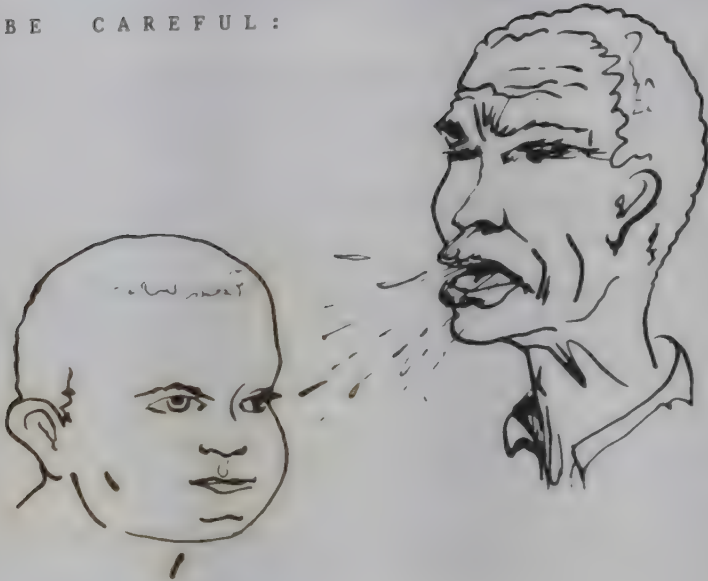
When you are treating a PATIENT WITH A RESPIRATORY DISEASE, TELL HIM AND REMIND HIM THAT: ...

HE AND HIS CHILDREN SHOULD EAT WELL  
HE SHOULD NOT COUGH ON OTHER PEOPLE OR SPIT ON THE FLOOR  
HE SHOULD TAKE GOOD CARE OF HIMSELF, ESPECIALLY WHEN THE PATIENT HAS BEEN COUGHING FOR A LONG TIME,

and carry out the following INSTRUCTIONS:



BE CAREFUL:



People, and especially CHILDREN, should not be allowed  
too near PEOPLE who are coughing

RESPIRATORY DISEASES

Examine the patient with respiratory disease, and always begin by asking him: "For how long have you been coughing and spitting?"

either:

1. THE PATIENT HAS BEEN COUGHING AND SPITTING FOR A FEW DAYS

Take his temperature (see technique page 240)

1.1 The patient's temperature is less than 38°

- either he has a runny nose (with a discharge like water or a thicker discharge like milk)
- or the patient has a sore throat every time he swallows anything.

Give him aspirin for 3 days (see page 237)

and tell him not to cough on other people, especially children, or spit on the floor.

SEE the patient AGAIN on the 4th day:

- everything is all right, the patient is cured. Tell him to come back if he becomes feverish,
- there is no improvement, and the patient is feverish: see 1.2

1.2 The patient's temperature is over 38°

- either the patient has difficulty in breathing and breathes rapidly,
- or his throat is very sore everytime he swallows anything,
- or he has discharge from one ear,
- or he has red spots all over his body and a runny nose and eyes

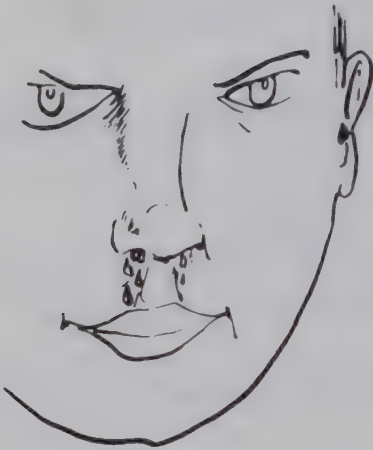
Give him penicillin, or if you do not have any, sulfadiazine tablets (see page 239)

SEE the patient AGAIN on the 3rd day:

- everything is all right, the patient is cured,
- there is no improvement, send the patient to the hospital or the health centre.

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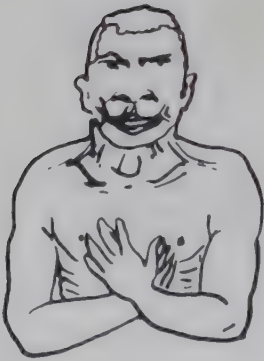
\* If you have neither penicillin nor sulfadiazine, send the patient to the hospital or the health centre



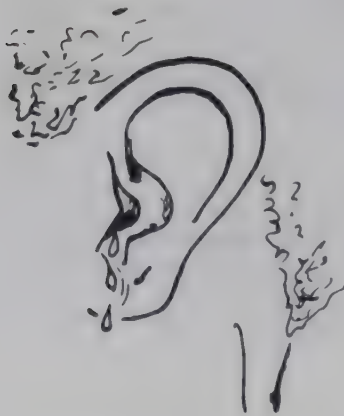
He has a runny nose



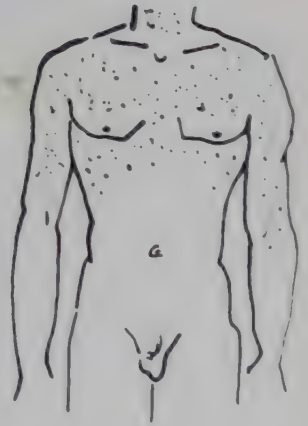
His nose and eyes are runny



He has difficulty  
in breathing



He has a discharge  
from one ear



His body is covered in  
little red spots

RESPIRATORY DISEASES

- 1.3 If the patient is a child who had a runny nose to start with, but who after a few days coughs a lot at times, becomes all blue and vomits phlegm or food.

1.3.1 If the child is less than 6 months old  
Send him to the hospital or the health centre-

1.3.2 If the child is over 6 months old  
Give him some aspirin (see page 237)  
But tell the mother that she should bring the child back to you if he becomes feverish  
In which case, treat the child as in 1.2.

2. THE PATIENT HAS BEEN COUGHING AND SPITTING FOR WEEKS OR MONTHS

Always send this patient to the hospital or the health centre, because his illness could be serious, and ask the patient to come back and see you after he has been to the hospital or the health centre, and if he has been prescribed a treatment, make sure that the patient follows it regularly.

2. THE PATIENT IS SPITTING BLOOD, HAS DIFFICULTY IN BREATHING AT NIGHT OR WHEN WALKING, HAS A PAIN IN HIS CHEST OR COUGHS UP PHLEGM WHICH SMELLS BAD

If every a patient shows any of these signs, send him to the hospital or the health centre.

*People who live with a patient who coughs and spits may catch his illness. They should therefore also be examined and told to come and see you as soon as they start coughing or spitting.*

---



Problem 1.5  
EPIDEMICS

# EPIDEMICS

---

WHEN SEVERAL PEOPLE SUDDENLY CATCH THE SAME DISEASE,  
IT IS CALLED AN EPIDEMIC.

IF THERE IS AN EPIDEMIC, IT IS NECESSARY NOT ONLY TO  
TREAT THE PEOPLE WHO ARE ILL, BUT ALSO TO PROTECT THE PEOPLE  
WHO ARE HEALTHY SO THAT THEY DO NOT BECOME ILL.

---

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. list four signs of illness which could cause an epidemic
2. list the precautions that you would advise the community or person to take to prevent the spread of:
  - 2.1 diarrhoea
  - 2.2 respiratory diseases
  - 2.3 coughing and vomiting in children
  - 2.4 feverishness - with running nose and eyes and red spots on the skin, particularly in children
3. give advice to patients and the community on how to prevent the spread of skin disease with small blisters on the skin
4. decide when to notify the supervisor about dangerous diseases or many people having the same disease.

EPIDEMICS

*If there is an*

*EPIDEMIC*

*either*

*There are:* 1. *People with diarrhoea (more than 3 liquid stools per day)*

*2. People with a cough*

*3. People who are feverish and have spots on their skin*

*4. People who are feverish and do not have anything else.*

1. PEOPLE WITH DIARRHOEA

Children as well as adults.

It is almost always in hot weather that these cases occur.

To treat them, see "Diarrhoea",

But be careful! this disease is catching and may be dangerous.

Therefore, tell the people living in your village:

1. to wash their hands before eating and after going to the toilet
2. to drink only water that has been boiled
3. to eat only food that has been cooked
4. to use latrines if possible
5. to ask the village chief to help them build wells which will provide them with good water.

2. PEOPLE WITH A COUGH

2.1 Children and adults with runny noses and a cough

It is almost always in cold weather that these cases occur.

BE CAREFUL: this disease is catching and may be dangerous, especially for small children and old people.



When there is an epidemic, you need the help of other people: Talk to the village chief or to the heads of families. Inform the supervisor.



EPIDEMICS

To treat them, see "Respiratory diseases", page 25  
and tell the people living in your village:

1. to stay at home when they have a cough and a runny nose
2. not to stay out in the cold and to wear plenty of clothes
3. to take good care of the children and old people and to come  
and see you immediately if, after a few days, someone has  
a high temperature, difficulty in breathing or discharge  
from an ear.

2.2 Children have a bad cough, become all blue and vomit

To treat them, see "Respiratory diseases"

BUT BE CAREFUL: this disease is catching and may be dangerous,  
especially for small children.

Therefore, tell the people living in your village that:

1. if they have small children, they should not let them play  
with children who are ill
2. if they have children who are ill, they should keep them  
at home while they have a bad cough and are vomiting, and  
they should bring them to you immediately if they become  
feverish or have difficulty in breathing

and report the new cases to your supervisor every week.

3. PEOPLE WHO ARE FEVERISH AND HAVE SPOTS ON THEIR SKIN

3.1 They are children

3.1.1 Either they have a cough and a runny nose and eyes

To treat them, see "Respiratory diseases"

BUT BE CAREFUL: this disease is catching and may be dangerous

Therefore, tell the people living in your village that:

1. if they have children, they should not let them play with  
children who are ill
2. if they have children who are ill, they should keep them at  
home while they have a temperature and spots on their skin,  
and bring them to you immediately if they have difficulty  
in breathing.

and report the new cases to your supervisor every week.

3.1.2 Or they have something on the skin, but they do not have a cough or runny eyes

To treat them, see "Skin diseases" page 150

Do not do anything unless your supervisor tells you to.

### 3.2 They are adults

3.2.1 Either, they have small watery blisters on the skin

BE CAREFUL: this disease may be dangerous.

Therefore, tell the people living in your village that:

1. if someone in their house is ill, they should keep him in bed and tell their neighbours and friends not to come to their house,
2. if you live in a country where smallpox still occurs, warn your supervisor and the village authorities immediately

and report every new case to your supervisor.

3.2.2 Or it is something else

To treat them, see "Skin diseases"

and report the new cases to your supervisor every week.

# PREGNANCY

---

WHEN A WOMAN IS EXPECTING A BABY, SHE IS SAID TO BE PREGNANT: THIS IS PREGNANCY.

NORMALLY, A WOMAN WHO IS BETWEEN 15 AND 45 YEARS OLD LOSES BLOOD THROUGH THE VAGINA EVERY MONTH. THIS IS CALLED A PERIOD. WHEN SHE HAS NOT HAD A PERIOD FOR MORE THAN 6 WEEKS, SHE IS PROBABLY PREGNANT AND HER CHILD WILL BE BORN ROUGHLY 9 MONTHS AFTER THE DATE OF HER LAST PERIOD.

THE BABY DEVELOPS INSIDE HIS MOTHER'S BELLY IN A POCKET KNOWN AS THE WOMB; AS THE CHILD GROWS, THE WOMB BECOMES BIGGER AND YOU CAN FEEL IT WHEN YOU PUT YOUR HAND ON THE BELLY OF A WOMAN WHO IS MORE THAN 3 MONTHS PREGNANT.

---

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. list two positive signs of pregnancy
2. indicate on examination whether a woman is less than five months pregnant, or six months pregnant and over, or at term
3. give advice on hygiene and nutrition to a pregnant woman
4. treat a pregnant woman who complains of being tired with or without feverishness
5. give treatment for bleeding as prescribed
6. list three situations when a woman is bleeding which requires that she goes to hospital or the health centre
7. decide by feeling the woman's belly whether it is hard or not
8. describe four conditions in pregnancy when you have to send the woman to the hospital or health centre
9. send to hospital or the health centre any pregnant woman who:
  - is suffering from vomiting directly if the vomiting occurs in the last four months of pregnancy after treatment has failed if vomiting occurs in the first five months
  - is losing blood from below (the vagina)
  - continues to feel tired after one month's treatment
  - has discharges which stain her underpants and does not respond to treatment
  - during the last four months of pregnancy has swollen legs, or a hard and tender belly.



PREGNANCY

P R E G N A N C Y

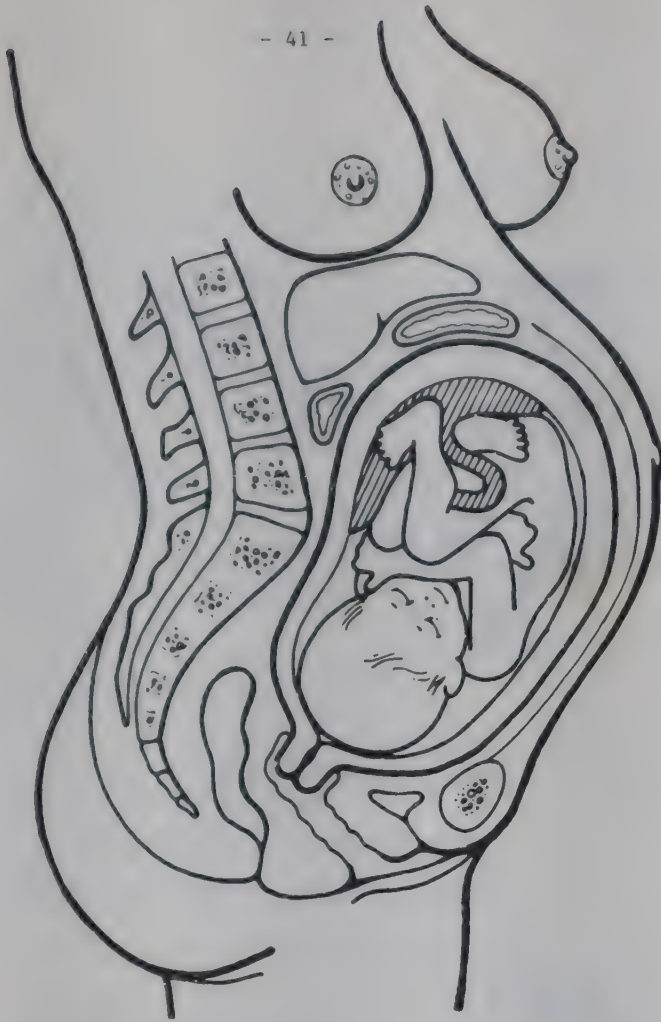
*Pregnancy is not a disease, but the diseases which occur during pregnancy may be dangerous, because if they affect the mother, they may also affect the child she is expecting.*

*PREGNANCY SHOULD THEREFORE BE SUPERVISED REGULARLY because a pregnancy which is not supervised may sometimes kill either the mother or the child or both of them.*

*YOU SHOULD TELL THE PEOPLE LIVING IN YOUR VILLAGE OR IN YOUR DISTRICT THAT ANY WOMAN WHO HAS NOT HAD A PERIOD FOR OVER 6 WEEKS SHOULD COME AND SEE YOU TO FIND OUT IF SHE IS PREGNANT OR NOT.*

*AND, IF SHE IS PREGNANT, TELL HER WHAT TO DO TO PROTECT HER HEALTH AND THE HEALTH OF THE CHILD SHE IS EXPECTING.*

*EVERYTIME A PREGNANT WOMAN COMES TO SEE YOU, CARRY OUT THE FOLLOWING PROCEDURE:*



usual position of the baby in its mother's  
belly towards the end of pregnancy



The woman is losing  
blood through the vagina



The top of the womb is  
below the navel



The top of the womb is  
above the navel

## PREGNANCY

When a woman tells you that she no longer has a period, ask her since when she has not had a period.

If the woman tells you that she has not had a period for 1 to 2 months,

- if she has no complaints, see the next paragraph 1.1 and tell her to come back and see you in 2 months' time, unless something goes wrong in the meantime
- if she has a complaint, see the following paragraphs 1.2, 1.3, 1.4 and 1.5

If the woman tells you that it is more than 3 months since she had her last period, put your hand on her belly (see drawing) to feel the womb:

EITHER you cannot feel the womb in her belly, in which case see "Diseases of women" paragraph 2.2

OR you can feel the womb and the top of the womb is below or at the level of the navel (see drawing)

This woman is 3 to 6 months pregnant

OR you can feel the womb and the top of the womb is above the navel (see drawing) and the woman tells you that she can feel the child move

This woman is 6 months pregnant or more

### 1. THE WOMAN IS 3 TO 6 MONTHS PREGNANT

#### 1.1 The woman does not complain of anything

If she is healthy, do not give her any medicine because some of them may harm the baby

Advise her not to get too tired and to eat well, including vegetables, beans, fresh fruit and, if possible, milk, eggs, meat and fish

Tell her to come back and see you during the 6th and 8th months, unless she feels there is something wrong.

#### 1.2 The woman suffers from vomiting, especially in the morning

This is something which often happens, especially if the woman is expecting her first baby

Advise her to eat less at a time, but to eat more often and not to drink while she is eating, but to drink often and in small quantities a long time before or after meals

Tell her to rest and to eat nourishing food as in 1.1

If after a week, the woman is still vomiting everything she eats and drinks, send her to the hospital or the health centre.

PREGNANCY

1.3 The woman is losing blood through the vagina

1.3.1 The woman is losing no more blood than when she has her period and her belly does not hurt

Tell her to stay in bed but to call you if she loses more blood

See her again on the following day:

- either she is losing less blood or no blood at all:  
tell her to rest as much as possible for a week
- or she is no better or else she is losing blood again,  
although she has not been losing any for several days  
Send her to the hospital or the health centre and tell her to drink plenty of liquid on her way there.

1.3.2 The woman is losing more blood than when she has her period and she has pains in the belly

Send her to the hospital or the health centre and tell her to drink plenty of liquid on her way there

1.3.3 The woman has lost some blood, but there were lumps in it, like meat

If she is no longer losing any blood, tell the woman that she has probably had a miscarriage and that she must stay in bed and drink plenty of liquid.

See her again on the following day. If she is losing more blood, give her 1 or 2 tablets of ERGOTAMINE, see page 238

If the blood has not stopped after one day, send her to the hospital or the health centre

If she is no longer losing blood one day after having taken the tablets, tell her to come back after 1 or 2 weeks to see if she is still pregnant (put your hand on her belly: where is the top of the womb?)

If she is no longer pregnant and she does not want another child for the time being, see "Family welfare"

If she is still pregnant, tell her to come back and see you during the 6th and 8th months and to eat well (see 1.1).

1.4 The woman feels tired and weak

Take her temperature

1.4.1 The woman is feverish  
See "Feverishness"

1.4.2 The woman is not feverish  
Advise her to eat well, see 1.1  
Give her IRON SULFATE tablets (see page 239)

1.5 The woman has belly pains

If she is losing blood, see 1.3

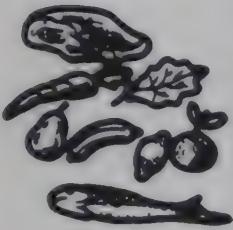
If she is not losing blood, see "Belly pains".



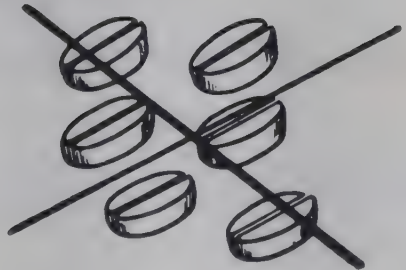
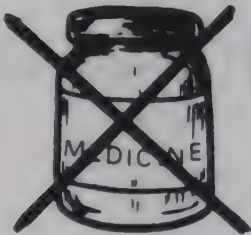
ADVISE  
THE  
PREGNANT WOMAN:



to rest



to eat well



not to take any medicines



not to drink alcohol

not to smoke

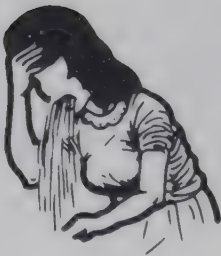
ARE THE MOTHER'S LEGS SWOLLEN?



PRESS WITH YOUR FINGER



THE DENT REMAINS



Vomiting is common  
in early pregnancy



Advise the mother  
to rest

PREGNANCY

2. THE WOMAN IS 6 MONTHS PREGNANT OR MORE

2.1 The woman does not complain of anything

See 1.1

If the woman is in the 6th or 7th month of pregnancy, tell her to come back during the 8th month, unless she feels something abnormal before then.

2.2 The woman suffers from vomiting

This may be serious, especially if the woman complains of headaches or if she has swollen feet and hands. In which case, send her to the hospital or the health centre.

If she has not got swollen feet but

- if she has diarrhoea, see "Diarrhoea"
- if she is feverish, see "Feverishness"
- if she has pains in the belly, see "Belly pains".

2.3 The woman is losing blood through the vagina

2.3.1 At the same time, the woman has pains in the belly which occur from to time

This woman may be about to have her baby. See "Delivery". But if the woman is only 7 or 8 months pregnant, send her to the hospital or the health centre.

2.3.2 The woman does not have any pains in the belly

This may be dangerous even if she is only losing a little blood.

Send her to the hospital or the health centre

2.3.3 At the same time, the woman has pains, but the pain never stops and her womb is very painful when you put your hand on her belly

This is always serious: send the woman to the hospital or the health centre immediately.

2.4 The woman has swollen feet and legs

Press with your finger on the swollen area (see drawing)

If the dent made by your finger stays for several minutes, then there is a swelling

Swollen legs and feet are common among women in the last months of pregnancy

If the woman has no other complaint, tell her to rest and not to eat salty food and to put only a little salt on her food

If the woman suffers from vomiting, see 2.2

If the woman has pains in the belly, see 2.5

If the woman feels tired and weak, see 2.6

See the woman again after a week. If her feet and legs are still swollen, send her to the hospital or the health centre

If the woman's face and hands are swollen, send her to the hospital or the health centre.

PREGNANCY

2.5 The woman has belly pains

2.5.1 If the pains come and go and then start again, and if her womb is hard but does not hurt, the woman is about to have her baby. See "Delivery".

2.5.2 If the pains continue without stopping and if her womb is painful when you put your hand on her belly, send the woman to the hospital or the health centre immediately.

2.5.3 If the woman has a pain in the belly but her womb is not hard and does not hurt, see "Belly pains".

2.6 The woman feels tired and weak

See 1.4, but first ask her if she suffers from headaches or swollen feet. If so, send her to the hospital or the health centre.

2.7 The woman is having or has just had convulsions

This is always serious. Send the woman to the hospital or the health centre immediately.

# DELIVERY

---

A NORMAL PREGNANCY LASTS ABOUT 9 MONTHS, AND THEN THE  
BABY COMES OUT OF HIS MOTHER'S BELLY: THIS IS THE DELIVERY.

MOST DELIVERIES GO VERY WELL AND WITHOUT ANY DIFFICULTY.  
BUT ALL DELIVERIES SHOULD ALWAYS BE CAREFULLY SUPERVISED.

---



DELIVERY

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. decide whether labour is beginning or not
2. take suitable measures of hygiene when labour begins
3. recognize the presenting part
4. provoke the breaking of the bag of waters if necessary
5. slow down the forward movement of the presenting part while supporting the woman's genitals
6. deliver the baby
7. tie and cut the cord
8. clean out the baby's mouth after birth
9. deliver the placenta
10. tell when to send the pregnant or just delivered woman to the hospital or health centre
11. demonstrate two things you should do for a woman who has lost more than  $\frac{1}{2}$  litre of blood after the expulsion of the placenta before sending her to the hospital or health centre
12. list three signs which indicate miscarriage (abortion)
13. send to hospital or the health centre any woman in labour:
  - in whom the cord or the baby's hand or foot is the presenting part
  - in whom there is no presentation despite severe pains
  - who is losing a lot of blood before or after expulsion of the afterbirth (placenta).

DELIVERY

D E L I V E R Y

*Delivery is not a disease, but the accidents which may occur during the delivery may be dangerous for the mother as well as the child.*

DELIVERY SHOULD THEREFORE BE SUPERVISED  
or else the mother, or the child, or both of them, may die.

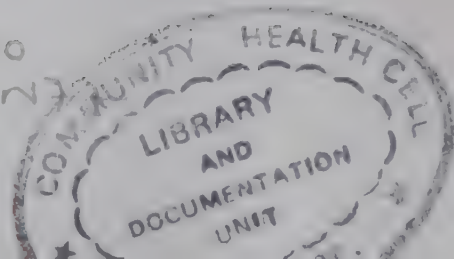
YOU SHOULD TELL THE PEOPLE WHO ATTEND DELIVERIES:

- TO KEEP THEIR HANDS CLEAN, TO USE CLEAN TOWELS  
AND CLEAN INSTRUMENTS (SCISSORS etc.)
- TO USE ONLY CLEAN WATER, BOILED IF POSSIBLE
- TO KEEP THE WOMAN AND THE CHILD CLEAN
- TO CALL YOU AS SOON AS SOMETHING UNUSUAL HAPPENS.

WHEN YOU ARE CALLED TO A DELIVERY, CARRY OUT  
THE FOLLOWING INSTRUCTIONS:

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WHAT TO DO BEFORE THE BABY COMES OUT

To begin with,  
wash your hands and  
fore-arms with  
soap and water



then,  
wash the woman's  
genitals as well  
... and your hands  
once again



## DELIVERY

### WHEN YOU ARE CALLED TO A DELIVERY:

1. How can you see if the woman is about to have her baby?
2. What are you going to do before the baby comes out?
3. What are you going to do while the baby is coming out?
4. What are you going to do after the baby has come out?

#### 1. HOW TO SEE IF THE WOMAN IS ABOUT TO HAVE HER BABY

Usually the woman is 9 months pregnant, although sometimes, but rarely, 7 or 8 months pregnant, and she starts having pain every 5 to 10 minutes in the lower belly or in the lower part of the back, and during the pains the womb becomes hard.

A little pink fluid or a little blood comes out of the vagina as when the woman has her period.

At the beginning of her delivery the woman sometimes loses a large quantity of water, "the waters" (it is the water from the bag in which the baby has been living in his mother's belly), and the pains will start after a few hours.

#### 2. WHAT TO DO BEFORE THE BABY COMES OUT?

- 2.1 To begin with, comfort the woman if she is frightened and ask her to be patient
- 2.2 Do not allow more than one or two people to remain in the room and, if possible, ask them to prepare clean boiled water to wash the mother and the baby
- 2.3 Ask the woman to try to pass water so that her body will be free
- 2.4 Wash the woman's genitals and then wash your hands and fore-arms with soap and water
- 2.5 If the woman tells you that the waters broke before you arrived, tell her to stay lying down until the baby is born
- 2.6 If she tells you that the waters have not yet broken, do not do anything and see 3. "While the baby is coming out"
- 2.7 Do not leave the woman once the pains become worse and come back every 2 minutes
- 2.8 If the pains become irregular, less strong or less frequent during the first 15-20 hours, send the woman to the hospital or the health centre.

WHAT TO DO WHILE THE BABY IS COMING OUT



when the baby's  
head appears



put your hands as  
shown in the drawing



The head is the biggest part of the baby.  
It should come out very slowly. If it comes out  
too quickly it will tear the mother's genitals.  
Once the baby's head is out the rest of the body  
will come out easily.



## DELIVERY

### 3. WHAT TO DO WHILE THE BABY IS COMING OUT

When the pains occur every 2-3 minutes and the woman feels the need to push, uncover the woman's genitals and look between her legs when she feels the pains:

3.1 If a little head appears at the opening: you can see hair on it.

To make the baby come out, tell the woman to push every time she feels the pains and to stop pushing when she no longer feels the pains. After she has pushed several times, you will see that the little head stays at the opening when the pains stop. From that moment onwards, every time the woman feels the pains and starts pushing, put your left hand on the baby's head to stop it from coming out too quickly<sup>1</sup>, and hook your right hand against the part of the woman where the baby's face is going to appear. Once the baby's head is out, the shoulders and the rest of the body will come out easily.

If the shoulders and the rest of the body do not come out easily, take the baby's head in both hands and pull gently downwards. Once the baby is out, tie the cord in 2 places and cut it in between the 2 knots. Then lift the baby by the feet, head downwards, and with a clean cloth, clean his mouth gently to remove any blood and liquid he may have swallowed while he was coming out of his mother's body. Then wipe off very gently the liquid which covers the child's skin.

3.2 If it is not the little head which appears at the opening  
This is rare, but BE CAREFUL: this situation is almost always serious.

3.2.1 It is the baby's buttocks or feet which appear at the opening.  
There is no hair.

When this happens, the baby's buttocks will come out first, then the body and finally the head. Usually the delivery will last longer and will be more painful. Explain therefore to the woman that she must be patient and that everything will be all right.

If you have already attended a delivery of this kind, and you feel confident, act in the way you have been taught. Otherwise send the woman to the hospital or the health centre, especially if it is the woman's first baby and if the hospital is not too far away.

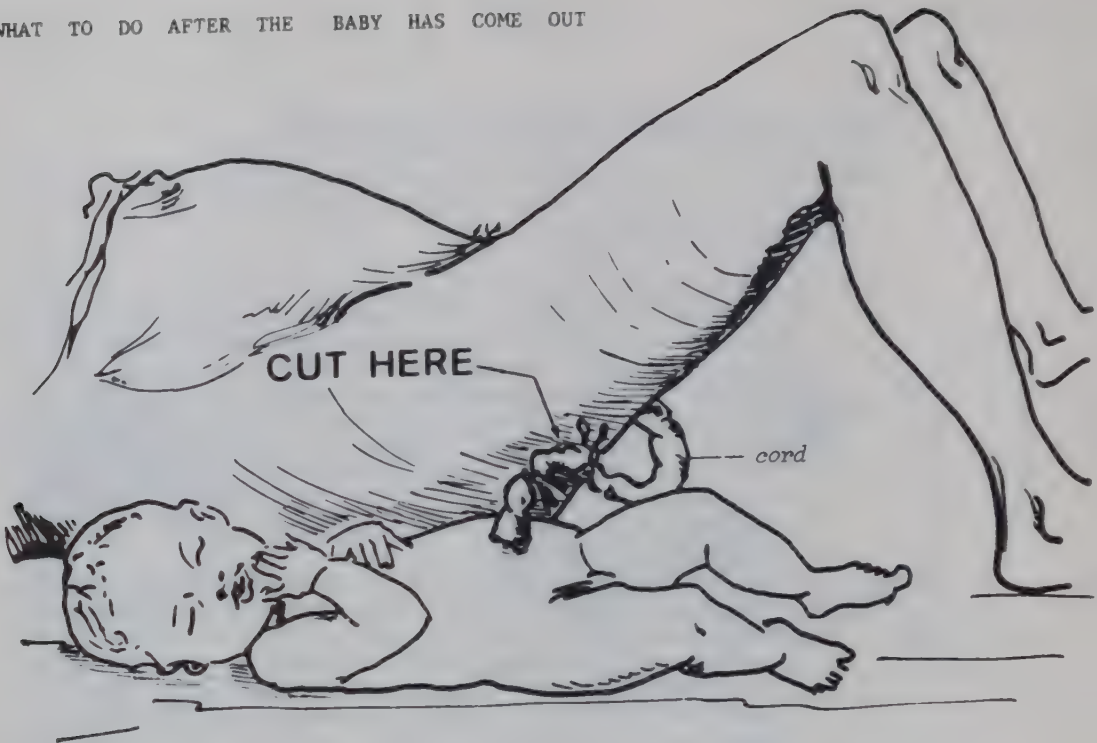
3.2.2 If it is the baby's cord, its hand or its shoulder which appears.

BE CAREFUL: this situation is serious because the baby and/or the mother may die. Send the woman to the hospital or the health centre immediately.

---

<sup>1</sup> If the baby comes out too quickly, he may tear his mother's genitals

WHAT TO DO AFTER THE BABY HAS COME OUT



WITH A CLEAN



RAZOR BLADE

OR CLEAN SCISSORS



Then,  
clean both eyes by  
putting a little eye  
ointment containing  
aureomycin in them

Clean the place where  
the cord was and cover  
it with a very clean  
piece of cloth



## DELIVERY

### 3.2.3 Nothing appears

The woman has violent pains every 2-3 minutes and even more often, but nothing appears at the opening.

If the woman is giving birth for the first time and the pains are not too bad, wait for an hour.

If nothing appears after an hour, send her to the hospital or the health centre

If the woman has already had one or several children, wait for two hours.

If nothing appears after these two hours, send her to the hospital or the health centre.

### 3.2.4 It is a bag of water which appears. As we have already seen, before he is born the baby lives in a bag of water inside his mother's belly. When the baby is about to come out, this bag of water breaks: we say that the "waters have broken".

This bag of waters almost always breaks when the pains become bad, but sometimes the bag does not break.

In which case, when the woman pushes when she feels the pains, you will see a bag appearing. You should then break it yourself, either with your finger or very carefully with the tip of a pair of scissors.

### 3.2.5 There is a large quantity of blood coming out

Send the woman to the hospital or the health centre immediately and tell her to drink plenty of liquid on her way there.

## 4. WHAT TO DO ONCE THE BABY HAS COME OUT

### 4.1 A quarter of an hour after the baby's birth, the woman will feel mild pains in the lower belly, this is normal. It is because the placenta which tied the baby to his mother inside the womb must also come out.

After a few pains, you will see the placenta appearing at the opening. It is a large piece of flesh. Do not pull the cord because it may tear, but wait until the placenta comes out by itself. The only thing you can do is to press lightly on the top of the womb.

### 4.2 Once the placenta is out, go back to the baby to wash him and clean his eyes (see drawing). Then put a bandage over the place where the cord was (see drawing).

### 4.3 If the placenta has not yet come out an hour after the baby's birth, or if the mother is losing blood through the vagina, gently massage the top part of the womb or, if you have any, give her an injection of OXYTOCINE in the buttocks (see page 238). If the placenta has not yet come out 2 hours after the baby's birth, or if only part of it has come out, or if the mother is losing more blood, send her to the hospital or the health centre.

DELIVERY

4.4 It is normal that the mother should lose about half a litre of blood before and while the placenta is coming out. But it is not normal that she should lose more blood once the placenta has come out: in that case you should either gently massage the top of the womb or give her an injection of OXYTOCINE, as indicated in 4.3.

If the woman continues to lose blood, give her plenty of liquid to drink and send her to the hospital or the health centre.

YOU SHOULD ALSO KNOW THAT:

- WHEN A WOMAN WHO IS 2 TO 6 MONTHS PREGNANT LOSES BLOOD WHETHER IT IS PAINFUL OR NOT, WHICH CONTAINS LUMPS OF FLESH OR A SMALL DEAD BABY: THIS IS A MISCARRIAGE. SHE IS NO LONGER PREGNANT.

- WHEN A PREGNANT WOMAN GIVES BIRTH AFTER 7 OR 8 MONTHS PREGNANCY, THE BABY WILL BE SMALLER AND WEAKER THAN A BABY BORN DURING THE 9TH MONTH OF PREGNANCY. IF HE IS NOT WELL LOOKED AFTER, THIS BABY MAY DIE MORE EASILY BECAUSE HE IS NOT AS STRONG.

---

# AFTER THE DELIVERY

(or postnatal care)

---

THE PERIOD AFTER THE DELIVERY IS THE PERIOD LASTING 40 DAYS AFTER THE BIRTH OF THE BABY.

THE MOTHER'S BREASTS WILL PROVIDE MILK TO FEED THE BABY AND THE WOMB WILL BECOME SMALL AGAIN AS IT WAS BEFORE PREGNANCY.

FOR THE BABY, LIFE IS BEGINNING.

---



POSTNATAL CARE

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. determine the position of the top of the uterus
2. give advice and teaching on cleanliness and good food
3. treat a woman who has constipation
4. decide whether a woman is feverish or not
5. recognize a raised temperature and give correct treatment
6. give treatment for pains in the lower belly, breasts, or in the legs
7. recognize when treatment has not improved the condition
8. recognize by feeling the belly when the uterus becomes normal
9. recognize sudden and much bleeding. Give necessary treatment and SEND TO HOSPITAL
10. send to hospital or health centre any woman who has had a baby and whose feverishness or pains has not responded to treatment.

POSTNATAL CARE

A F T E R     T H E     D E L I V E R Y

*It is during the month following the delivery that you should tell the mother how to protect her health and that of her baby:*

- BY KEEPING HER BODY CLEAN
- BY KEEPING HER BABY CLEAN
- BY EATING WELL
- BY FEEDING HER BABY WELL

*This is the time during which you should advise the woman and her husband to delay the next child, that is:*

TO WAIT FOR A FEW YEARS BEFORE HAVING ANOTHER BABY  
*so that the mother will have enough time to get her strength back without tiring herself out with a new pregnancy while she is still feeding her baby, and so that the baby will be better fed and better looked after by his mother.*

YOU SHOULD THEREFORE EXPLAIN TO THE WOMAN AND HER HUSBAND  
WHAT TO DO TO AVOID HAVING CHILDREN FOR AS LONG AS THEY WISH  
(see Problem 2.4 "Family Welfare").

---

*When you see a woman who has just had a baby,*

CARRY OUT THE FOLLOWING INSTRUCTIONS:

POSTNATAL CARE

EITHER:

1. The mother has no complaints
  - or 2. The mother is feverish
  - or 3. The mother has some other complaint.
- 

1. THE MOTHER HAS NO COMPLAINTS

1.1 She had her baby one or two days ago

Normally:

The womb is hard and the top of the womb is at the same level as the navel (see drawing).

Her breasts are beginning to produce milk.

The woman loses blood which is very red through her vagina, usually more than when she has her period.

Advise her:

1. to feed her baby 5 to 6 times a day, starting about ten hours after the birth
2. to wash carefully every day with soap and water: her baby, her breasts and her genitals
3. to eat well as during her pregnancy (see 1.1 page 43)
4. to walk about a little, but not to tire herself
5. if she feels mild pains in the belly, give her some aspirin for 1 or 2 days
6. if she is constipated, advise her to eat fruit with her breakfast, to go to the toilet in the morning after she has eaten, even if she does not need to, and to drink a big glass of water when she gets up in the morning and when she goes to bed at night.

1.2 She had her baby a week ago

The top part of the womb is situated in between the navel and the hairs (see drawing)

The woman loses through her vagina a liquid which is at first brown and then a yellowish white

The baby sucks well, 5 to 6 times a day

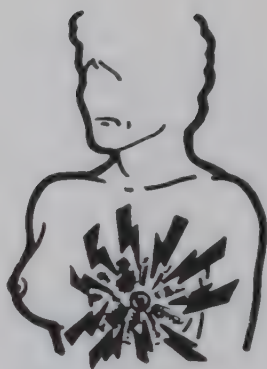
The cord became dry and fell off by itself

Advise her:

1. to feed her baby well 5 to 6 times a day
2. to wash her baby well, as well as her own breasts and genitals with soap and water
3. to go back to her ordinary work little by little, without tiring herself too much
4. to go back to her usual diet again and adding if possible, beans, cereals, eggs, meat, fish, vegetables and fresh fruit
5. not to have another baby for a few years. See "family welfare" page 68.



She had her baby a week ago  
now, the top part of the womb is below the navel  
one or two days after the birth the womb reached to the navel



One breast hurts a lot



Tell the mother to squeeze the milk from the breast with her hand and to then give this milk to her baby



She should put hot compresses on the breast that hurts: 3 or 4 thicknesses of cloth dipped into hot water (but not burning hot!) She should do this for 10 minutes and do it about 3 or 4 times a day



## POSTNATAL CARE

### 1.3 She had her baby about 40 days ago

When you put your hand on her belly you cannot feel the womb any more and the woman has no discharge from her vagina any more

Advise her:

1. to feed her baby well and to wash him carefully
2. to eat well, not to get too tired and to wash carefully
3. not to have another baby for a few years  
See "Family welfare" page 68 . Tell her that her period will start again in 6 to 8 months time, but
4. she may become pregnant at any time if she or her husband do not use certain methods to avoid another pregnancy.

## 2. THE MOTHER IS FEVERISH

### 2.1 With pains

#### 2.1.1 In the belly:

If the woman has a vaginal discharge which smells bad and her womb hurts when you put your hand on her belly, give her some ASPIRIN (see page 237) and at the same time, if you have some, 1 to 2 tablets of ERGOTAMINE (see page 238).

See her again the following day:

If she is still feverish and her belly still hurts a little, give her some PENICILLIN or some SULFADIAZINE, and see her again every day as long as she is feverish. If she is still feverish on the 5th day, send her to the hospital or the health centre.

#### 2.1.2 In one breast:

It is normal that on the 2nd or 3rd day after birth the mother should be a bit feverish and feel a little pain in the breasts which are swollen. She is only feverish for one day. If her breasts hurt, give her a little ASPIRIN. If she stays feverish or becomes feverish again, and if one breast hurts a lot and if it is so painful that she cannot feed her baby, ask her to press her breast with her hand to make the milk come out. She must do this cleanly, with clean hands and using a clean glass. She should then give this milk to her baby. Tell her also to put hot compresses on the breast which hurts 3 to 4 times a day (see drawing) and give her some ASPIRIN. See her again on the 4th day. If one of her breasts still hurts and contains a little lump which hurts, send her to the hospital or the health centre.



Every day  
she washes her whole body  
including her breasts  
and her genitals  
with soap and water



She also washes her baby

POSTNATAL CARE

2.1.3 In one of her legs, which is swollen and hurts:

Tell the mother to stay in bed and give her some ASPIRIN  
See her again on the 3rd day. If her leg is still  
swollen, send the woman to the hospital or the health  
centre.

2.2 If she is feverish but there is nothing else wrong

See "Feverishness" page 11.

---

Problem 2.4  
FAMILY WELFARE

# FAMILY WELFARE

---

FAMILY WELFARE IS EVERYTHING WHICH MAKES A FAMILY HAPPY.  
A FAMILY IS NOT HAPPY IF THE PARENTS AND THE CHILDREN ARE  
ILL, BADLY FED, TOO TIRED, TOO WEAK.

A WOMAN CAN HAVE A LOT OF CHILDREN, BUT SHE MAY WISH TO  
WAIT FOR A WHILE BEFORE HAVING ANOTHER ONE OR SHE MAY NOT  
WANT ANY MORE.

WHEN A WOMAN DOES NOT HAVE A CHILD EVERY YEAR, SHE WILL  
BE HEALTHIER AND SO WILL HER CHILDREN.

THERE ARE METHODS WHICH ALLOW A COUPLE EITHER TO HAVE  
A CHILD ONLY WHEN THEY WISH TO OR TO HAVE NO MORE CHILDREN.

---

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. talk with village people about why it is important for a woman to rest after having a baby
2. list three ways to avoid having a baby
3. point to the contraceptives that a PHC may give to a woman or a man
4. recognize when a woman is sick after taking contraceptive pills
5. recognize when a woman, who is taking contraceptive pills or who has a coil, is sick and must go to the hospital because:
  - she has headaches and/or swollen legs
  - the coil has come out from the body
6. talk with men about using a condom and how to make sure it is in good order
7. refer to the health centre, men and women who have problems because they do not want any more children.



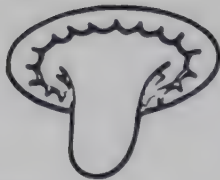
FAMILY WELFARE

*The mother is a very important member of the family: she gives birth to the children and she brings them up. If her health is bad because she eats badly or because she is too often pregnant, the health of her baby will also be bad.*

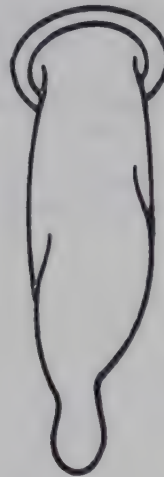
*The father is the head of the family. If he does not want his wife to use a method of avoiding pregnancy, his wife will not want to either.*

*If you cannot inform and convince the father and sometimes even the mother-in-law as well as the mother herself, you will very probably be wasting your time!*

*The village birth-attendant is widely respected in the community where she lives and works. She probably delivers most of the babies. It is important for you to be on good terms with her, and for you to make her understand what you are doing so that she can help you and give the same advice as you to the people in the village.*



rolled-up sheath



unrolled sheath  
(or condom)

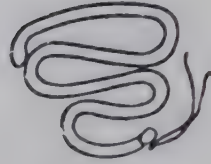
FAMILY WELFARE

A WOMAN AND HER HUSBAND MAY WISH TO WAIT FOR A WHILE BEFORE HAVING A BABY OR NOT TO HAVE ANY MORE.

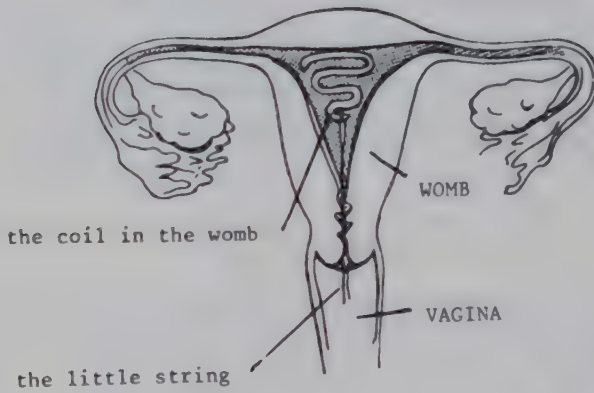
*When you see a woman again after a delivery or after a miscarriage, tell her and her husband, and also the other women living in the house, how it is possible to avoid becoming pregnant. But explain to them what to do by showing them the drawings and the methods used.*

1. THE COUPLE WISH TO WAIT FOR A FEW YEARS BEFORE HAVING ANOTHER BABY

- 1.1 If they wish to use sheaths, explain to the husband how to use a sheath and give him ten of them. Tell him to come back in a few week's time before having used the last sheath. If he is satisfied, give him some more and tell him to come back to get some more before having used all those you have given him.  
If he is not satisfied, send the woman to the health centre so that she can learn how to take the pills or so that she can be fitted with a coil.
- 1.2 If they do not want to use sheaths, send the woman to the health centre for her to get the pills or a coil.
- 1.3 If the woman has been given pills at the health centre, see her again after a month and ask her how she is feeling.
  - 1.3.1 If she feels well, give her pills for 3 months and tell her to come back before she has used them all.
  - 1.3.2 If she sometimes feels sick, if she feels tired or if she loses a little blood through her vagina when she does not have her period, comfort her and tell her that these complaints will soon go away. Give her pills for 2 months and tell her to come back when she has finished them.  
If after these two months she still has the same complaints, send her to the health centre to be fitted with a coil.
  - 1.3.3 If she complains of bad headaches or if one of her legs is swollen and hurts, send her to the hospital or the health centre.



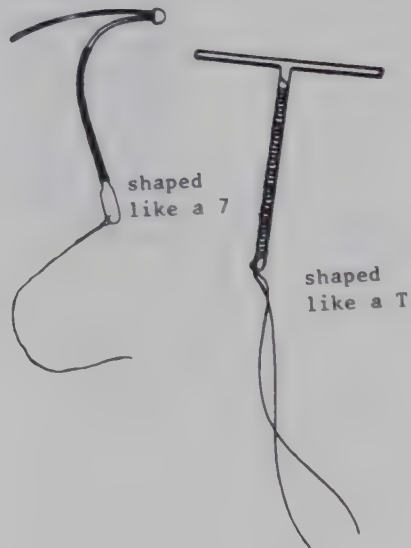
a coil  
which is put in the womb



the coil in the womb

the little string

Other shapes of  
coils



shaped  
like a 7

shaped  
like a T

FAMILY WELFARE

- 1.4 If the woman has been fitted with a coil, see her again after one month and ask her how she is feeling.
  - 1.4.1 If she has no complaints, see her again after 3 months and again after 6 months
  - 1.4.2 If the coil has come out of the vagina by itself, send her to the health centre to be fitted with a new one.
  - 1.4.3 If she complains of losing blood when she does not have her period or of having discharge which is not blood, or else of having had a very heavy period during the first month, comfort her and tell her that everything will stop almost always after 1 or 2 months  
See her again after 2 months: if she is no better, send her to the hospital or the health centre.
- 1.5 If the woman has not had a period for more than 6 weeks and she is not suckling, she may be pregnant, even if she is taking pills or if she has been fitted with a coil. If she does not want a child now, send her to the hospital or the health centre.
- 1.6 If, later, the woman tells you that she wants a baby but that she is taking pills, tell her to finish those she has started and then to stop. Her next period will probably be a few weeks late if she is not pregnant. See her again 3 months after she has stopped taking the pills.  
If she does not have her period any more, she may be pregnant.  
See "Pregnancy" page 38  
If, when you put your hand on her belly, you cannot feel the womb, see her again after 3 months. If after these 3 months you still cannot feel the womb and the woman has still not had a period, send her to the hospital or the health centre.  
If she has been fitted with a coil and she now wants a baby, take the coil out yourself if you have been taught how to, otherwise send the woman to the hospital or the health centre. Tell her that her periods will come as they did before until she becomes pregnant.

2. THE COUPLE NEVER WANT TO HAVE ANY MORE CHILDREN

- Explain to the woman and her husband that either of them can have an operation so that he or she can no longer have children. If they wish, send one or the other to the hospital or the health centre.
- If it is the husband who has had the operation, remind him to use a sheath the first 10 times he has intercourse after his operation. Then give him some sheaths. Tell the woman and her husband that from then onwards there is no longer any risk of them having children.
- If it is the woman who has had the operation, remind her that she will no longer be able to have children starting from the first time she has intercourse, but that she will continue to have her period as before her operation.
-

# DISEASES OF WOMEN

---

WOMEN HAVE DISEASES WHICH MEN DO NOT HAVE; THEY ARE THE DISEASES WHICH AFFECT THOSE PARTS OF THEIR BODIES WHICH PRODUCE BABIES.

A WOMAN WHO CAN HAVE CHILDREN LOSES, DURING A FEW DAYS, A LITTLE BLOOD EVERY MONTH; THIS IS HER PERIOD. WHEN A WOMAN'S PERIOD IS LATE, SHE IS PROBABLY EXPECTING A BABY. SHE IS THEN SAID TO BE PREGNANT, AND THIS CONDITION IS KNOWN AS PREGNANCY.

ANY WOMAN WHO LOSES BLOOD WHEN SHE DOES NOT HAVE HER PERIOD OR WHEN SHE NO LONGER HAS ONE, SHOULD ALWAYS BE SENT TO THE HOSPITAL OR THE HEALTH CENTRE.

---



LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. give advice to any girl who has not yet started her periods
2. treat any girl who has painful periods
3. tell whether or not a woman is pregnant
4. tell whether or not a woman has got to an age when she can no longer have children
5. give advice to a woman who is depressed, sleeps badly and complains that she hurts all over
6. send to the hospital or health centre:
  - any girl who has not started her periods by the age of 18 years
  - any woman aged less than 40 years who no longer has her periods but who is not pregnant
  - any woman who is losing blood from below or who has discharges that stain her underpants
  - any woman who has painful periods
  - any woman who remains depressed in spite of treatment.

## DISEASES OF WOMEN

### WOMEN MAY HAVE CERTAIN DISEASES IN THEIR GENITALS:

- because they were not supervised or treated properly when they were expecting or when they had a baby (bad diet, bad hygiene, ...)
- because they have given birth to a lot of babies which tired their genitals

and these diseases are often serious because women, who do not like to say they are in pain, leave these diseases for too long before getting them treated.

### TO PROTECT THE WOMEN IN YOUR VILLAGE OR IN YOUR DISTRICT AGAINST THESE DISEASES, ADVISE:

- the women to get treated every time they are expecting a baby or when something goes wrong with their genitals
- the people who attend deliveries to keep their hands clean and to use clean utensils and instruments (to cut the cord, to wash the woman's genitals, ...)

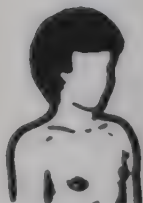
### WHEN A WOMAN COMES TO SEE YOU BECAUSE OF A DISEASE IN HER GENITALS,

carry out the FOLLOWING INSTRUCTIONS:

DISEASES OF WOMEN

1. THE PATIENT IS A GIRL WHO HAS NOT YET STARTED HER PERIODS

1.1 She does not complain of anything



If the girl is not yet 18 years old, do nothing and tell the family to come back and see you when the girl is 18, but advise them to feed her well

If the girl is 18 years old or more, send her to the hospital or the health centre.

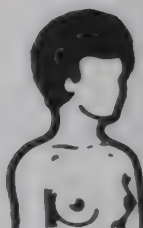
1.2 She has a complaint

For example, she has a cough, she is feverish, she feels tired, she has pains in her belly. In this case, see the corresponding PROBLEMS.

2. THE PATIENT IS A WOMAN WHO HAS NOT HAD HER PERIOD FOR AT LEAST ONE MONTH

2.1 If the woman has not had her period for only 1 month

Do nothing and tell this woman to come back and see you after 2 months



2.2 If the woman has not had her period for 3 months or more

Look for signs of pregnancy in the belly and see "Pregnancy"

If the woman is not pregnant, ask her if she sometimes feels hot flushes which come up from her body towards her head, as if she were feverish

If the woman tells you that she sometimes feels these hot flushes, explain to her that it is because she has reached an age when her genitals can no longer produce children. Advise her to continue with her work, but if she is too fat, tell her to eat less, especially less fatty or sugary food, such as fried food, fatty meat, cakes.

If the woman tells you that she does not feel these hot flushes, then send her to the hospital or the health centre.

3. THE PATIENT IS A WOMAN WHO HAS PAINS IN HER BELLY EVERY TIME SHE HAS HER PERIOD

3.1 She is a girl or a woman who has not yet had any children

Tell her to take some aspirin during the first two days of her period

If she is no better after a few months, send the patient to the hospital or the health centre.

3.2 She is a woman who already has one or several children

Send the patient to the hospital or the health centre.



DISEASES OF WOMEN

4. THE PATIENT LOSES EITHER BLOOD OR SOMETHING ELSE  
THROUGH THE VAGINA

The woman loses:

- blood when she does not have or no longer has her periods
- too much blood during her period
- something other than blood: such as water, milk, pus

Send the patient to the hospital or the health centre, but if she is losing a lot of blood, make her drink plenty of water.

5. THE PATIENT IS A WOMAN WHO FEELS SAD AND TIRED

The woman is sad and cries a lot, she cannot sleep, and when she gets up in the morning she already feels tired as if she had worked during the night.

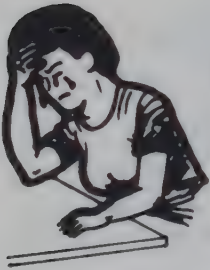
The patient will tell you that she can sometimes feel her heart beating too hard in her chest, that her head, her arms, her legs hurt: she has pains all over.

Talk to this woman who feels unhappy and try to find out why she is sad

- EITHER, it is because she does not want to have another baby, because she already has too many, because she has not got enough money to feed them or to bring them up, see "Family welfare"
- OR, it is because she has problems in her life: in her work, with her husband, her children, her family, her neighbours, ...

Try and help her find a solution to her problem: talk to her husband about it, for example. See "Mental diseases".

If, despite your advice, she is no better, send the patient to the hospital or the health centre.



Problem 3.1  
THE WELL-FED CHILD

# THE WELL - FED CHILD

---

FOR A CHILD TO BE HEALTHY, HIS MOTHER SHOULD GIVE HIM  
HER MILK.

- NOTHING BUT MOTHER'S MILK DURING THE FIRST 4 MONTHS
- THEN FROM THE 5TH MONTH TO A YEAR, HER MILK TOGETHER  
WITH OTHER FOODS.

ONCE THE CHILD IS ONE YEAR OLD, HE WILL EAT WHAT  
EVERYONE ELSE EATS.

---

MOTHER'S  
MILK  
IS  
BEST





THE WELL-FED CHILD

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. list four reasons why breast-feeding is best for babies
2. say at which age a baby needs other foods as well as breast milk
3. list the food to give to a baby aged:
  - 4 months
  - 5 months
  - 1 year
4. demonstrate how to prepare food for a baby aged 5 months and a baby aged 1 year
5. demonstrate what to write on the Growth Chart
6. say why the Growth Chart is useful. Indicate reasons to use a Growth Chart.

THE WELL-FED CHILD

FOR A CHILD, MOTHER'S MILK IS BEST

- because it is always clean and needs no preparing
- because it does not cost anything
- but also because it protects the child against the diseases caused by germs.

TELL AND ALWAYS REMIND THE MOTHERS IN YOUR VILLAGE/  
DISTRICT TO BREAST-FEED THEIR CHILDREN:

- giving them nothing but milk during the first 4 months
- gradually adding other nourishing foods from the 5th month onwards

NEVER TO FEED A CHILD WITH TINNED MILK WHEN IT IS  
POSSIBLE TO BREAST-FEED

TO COME AND SHOW YOU THEIR BABY EVERY 3 MONTHS TO WEIGH  
IT AND EVERY TIME THE BABY IS ILL.

AND THEN CARRY OUT THE FOLLOWING INSTRUCTIONS:

AFTER 5 MONTHS

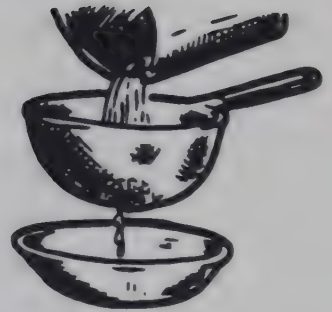


Mother's milk is still  
the best food

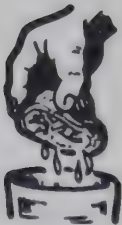
but, there should also be:



mashed hard-boiled egg



pap or mash

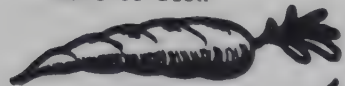


fruit juice

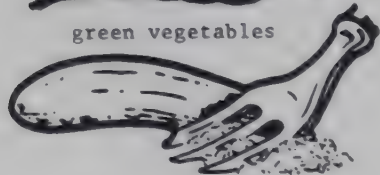
and also



meat or fish



green vegetables



mashed banana

THE WELL-FED CHILD

B E C A R E F U L : NEVER FORGET TO WEIGH A CHILD AND SEE IF, FOR HIS AGE, HIS WEIGHT IS ON "THE RIGHT ROAD" (see the growth chart, pages 85 and 86)

1. THE CHILD IS LESS THAN 5 MONTHS OLD

Advise the mother:

- to suckle the baby every time it asks
- to eat well in order to have good quality milk

2. THE CHILD IS BETWEEN 5 AND 12 MONTHS OLD

Milk is still the best food, but it is no longer enough for the child to develop completely. The child should therefore get used to eating other foods in addition to the milk.

Advise the mother:

- to continue to suckle
- and to start giving the baby, gradually at first, either:
  - rice or wheat pap, mashed banana, taro or potato, sweet potato, cooked groundnuts, mashed fruit or vegetables, or fruit juice, or any other similar baby food usually given in your region
- then:
  - beans, peas, lentils, well-cooked and ground chick peas, fresh vegetables and fresh peeled fruit
  - to cook the food well to make it easier to eat
  - to add, each time it is possible, a mashed hard-boiled egg, some well-cooked meat or fish.

3. THE CHILD IS MORE THAN ONE YEAR OLD

The child is gradually starting to eat like an adult and the mother's breast is becoming less and less sufficient.

Advise the mother:

- to watch her child so that he eats well
- and to add gradually foods such as: butter, groundnut oil, palm oil, cotton oil, wheat oil, coconut oil, or any other similar food available on the spot.

W H E N   Y O U   C A N

*draw up*

*for each child*

*a*

## GROWTH CHART

*based on the model on the two*

*following pages*

*In this way you will be able to follow the growth of each child in your village/district by writing its weight down on the chart each time.*

*Your supervisor will give you the necessary instructions on how to use it and to decide which children should be referred for special care or supervision.*

GROWTH CHART

APPOINTMENTS

HEALTH CENTRE		CHILD'S No.
CHILD'S NAME		
DATE FIRST SEEN	BIRTHDAY	
MOTHER'S NAME		REGISTRATION No.
FATHER'S NAME		REGISTRATION No.
WHERE THE FAMILY LIVES ( ADDRESS )		

BROTHERS AND SISTERS

Year/birth	Boy /girl	Year/birth	Boy /girl	Remarks

IMMUNIZATIONS

ANTI-TUBERCULOSIS (BCG) Date of immunization .....	SMALLPOX Date of immunization ..... Date of scar inspection ..... Date of reimmunization .....
WHOOPING COUGH, TETANUS AND DIPHThERIA Date of first injection ..... Date of second injection ..... Date of third injection .....	POLIOMYELITIS Date of first immunization ..... Date of second immunization ..... Date of third immunization .....
MEASLES Date of immunization .....	



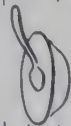
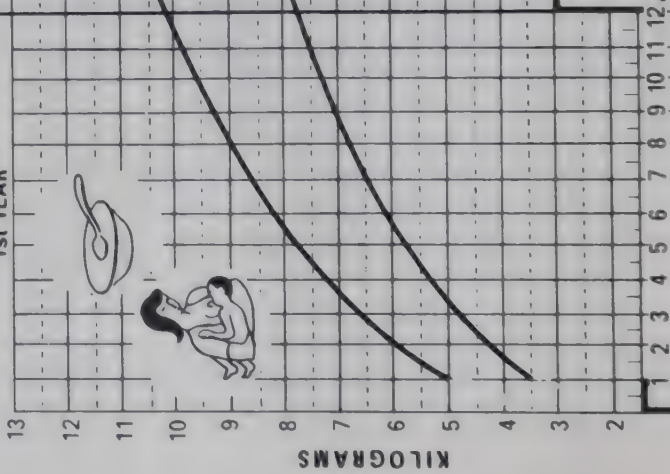
REASONS FOR SPECIAL CARE

Name ..... 22  
..... 21  
Birth weight ..... kgs ..... 20  
..... 19

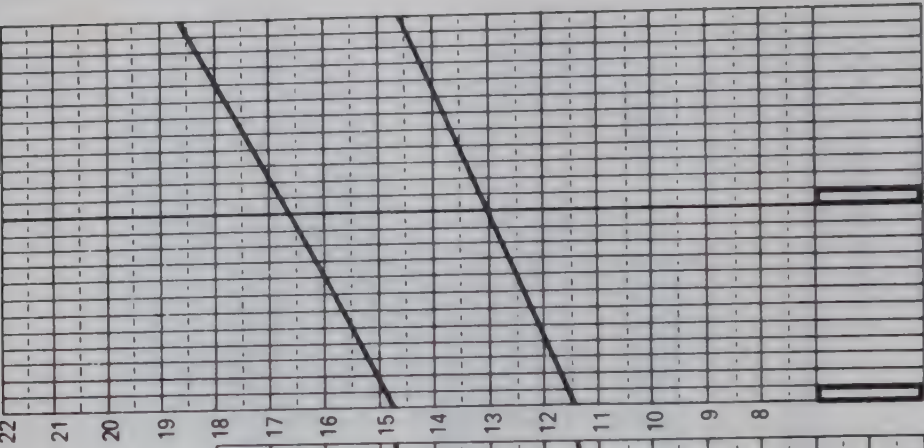
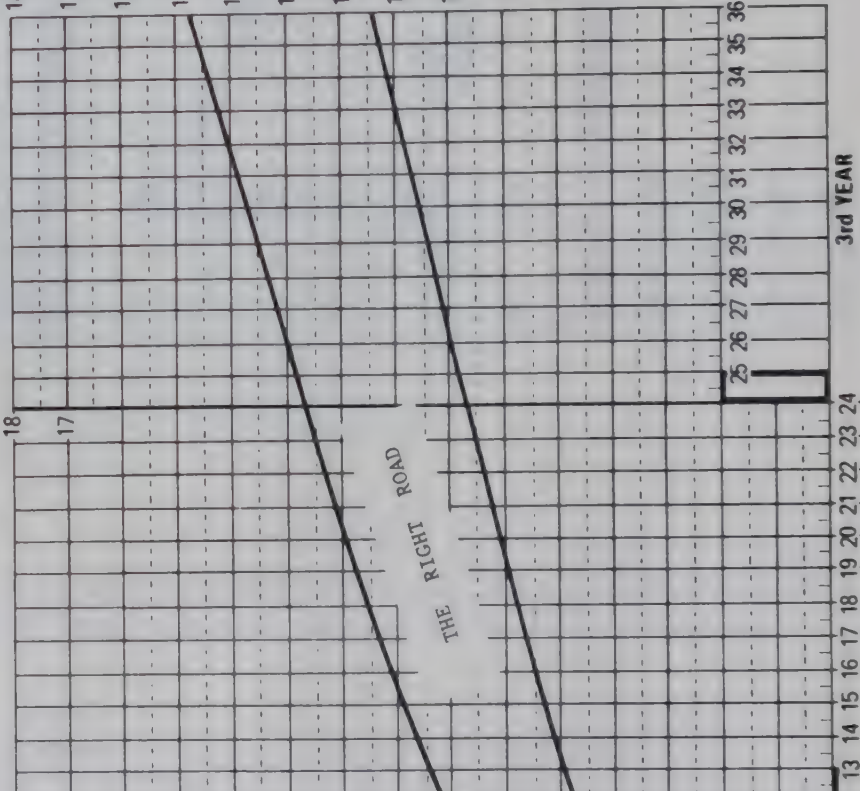
Mother	
Child spacing	
Father	

WEIGHT

1st YEAR



THE RIGHT ROAD



THE WELL-FED CHILD

WEIGHT AND HEIGHT TABLE  
according to age<sup>\*</sup>

WHAT THE WEIGHT AND HEIGHT OF CHILDREN SHOULD BE FROM 4 MONTHS TO 7 YEARS:

At 4 months	a boy should weigh	6 kilos	and have a height of	61 cms
	a girl " "	5.6 "	" "	60 "
At 6 months	a boy " "	7.6 "	" "	67 "
	a girl " "	7 "	" "	65 "
At 9 months	a boy " "	8.5 "	" "	71 "
	a girl " "	7.9 "	" "	69 "
At 1 year	a boy " "	9.1 "	" "	75 "
	a girl " "	8.7 "	" "	73 "
At 1 and a half years	a boy " "	10.3 "	" "	81 "
	a girl " "	9.7 "	" "	80 "
At 2 years	a boy " "	11.4 "	" "	86 "
	a girl " "	10.6 "	" "	85 "
At 2 and a half years	a boy " "	12.2 "	" "	89 "
	a girl " "	11.8 "	" "	89 "
At 3 years	a boy " "	12.8 "	" "	93 "
	a girl " "	12.3 "	" "	91 "
At 3 and a half years	a boy " "	13.8 "	" "	96 "
	a girl " "	13 "	" "	95 "
At 4 years	a boy " "	14.4 "	" "	99 "
	a girl " "	13.9 "	" "	99 "
At 4 and a half years	a boy " "	15.2 "	" "	102 "
	a girl " "	14.4 "	" "	101 "
At 5 years	a boy " "	15.8 "	" "	106 "
	a girl " "	15.2 "	" "	105 "
At 6 years	a boy " "	17.3 "	" "	110 "
	a girl " "	17 "	" "	110 "
At 7 years	a boy " "	18.7 "	" "	116 "
	a girl " "	18 "	" "	115 "

\* This table is only an example, and since no example can be applied everywhere, a table should be drawn up for each country or each region so that it will be valid in your community.

Problem 3.2  
THE BADLY-FED CHILD

# THE BADLY - FED CHILD

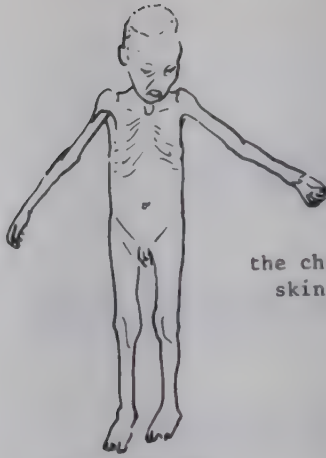
- 
1. THE CHILD IS THINNER AND SMALLER THAN THE 'NORMAL' CHILDREN OF HIS AGE.
  2. THE CHILD IS JUST SKIN AND BONE.
  3. THE CHILD HAS SWOLLEN LEGS, FEET AND HANDS.
-

THE BADLY-FED CHILD

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. weigh a child
2. decide whether the child has the right weight for his age
3. recognize the three major signs of malnutrition
4. show a mother how to prepare a bottle of liquid to feed a child suffering from malnutrition, when the liquid is to be given either in addition to breast feeding or the child's usual diet or by itself with a spoon
5. tell in what cases you would send a child suffering from severe malnutrition to the hospital or health centre
6. Send to the hospital or health centre any child suffering from severe malnutrition if he is very cold or very hot
  - or any child suffering from mild malnutrition who does not improve after 10 days treatment.



the child is just  
skin and bone

**DANGER**

his hair changes colour



**DANGER**

---

the child has swollen legs,  
feet and hands



THE BADLY-FED CHILD

1. EITHER THE CHILD IS THINNER AND SMALLER THAN THE HEALTHY CHILDREN OF HIS AGE

1.1 Ask how old the child is

Weigh him

Look on the growth chart (page 86) to see if he is on "the right road"

1.2 This child may be ill and he should be treated:

- has he got diarrhoea? see Problem 1.3 page 16
- does he have difficulty in breathing?  
has he got a cough? See Problem 1.4 page 25
- is he feverish? See Problem 1.2 page 11
- has he got worms? See Problem 6.6 page 180

1.3 This child may not be well-fed:

- Ask the mother what he eats and see Problem "The well-fed child" to advise the mother on what to give her child
- See the child again after 10 or 15 days. Weigh him:
  - if the child has put on weight and does not seem ill, tell the mother to continue feeding her child well
  - if not, send him to the hospital or the health centre.

2. OR THE CHILD IS JUST SKIN AND BONE

- 2.1 - he is very thin
- his skin makes folds
  - his eyes are sad and seem to be asking for help

BE CAREFUL: it is serious, this child has not had enough to eat for a long time.

2.2 But this child may also have other diseases, which should be treated. See 1.2

2.3 The mother should be taught to feed her child better  
See "The well-fed child"  
Perhaps also the child does not want to eat or vomits?

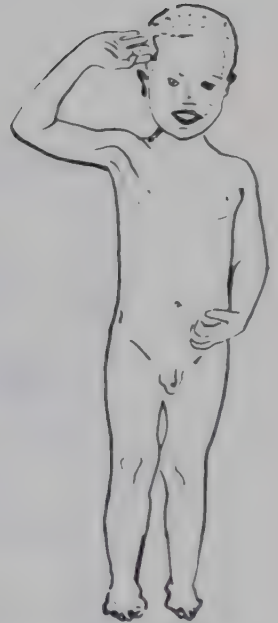
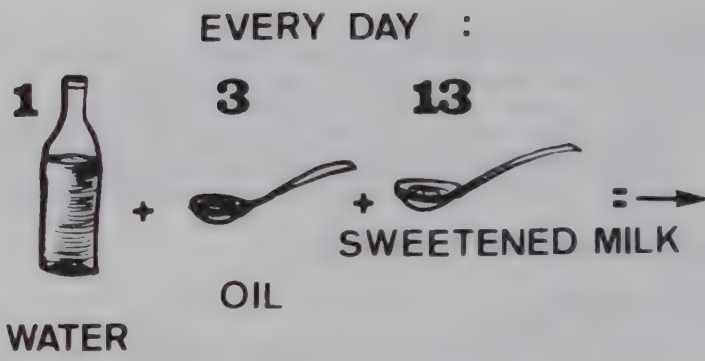
2.4 In addition to what he usually eats, the child should drink every day  
a litre-bottle containing:

- 3 tablespoons of vegetable oil
- 13 tablespoons of sweetened condensed milk
- the rest of the water that has been boiled

2.5 If the child wants to eat and if he does not vomit, continue the diet for 1 or 2 months. He will put on weight. See him again every 15 days and weigh him.  
If the child does not want to eat or if he vomits everything he has been given,

SEND HIM TO THE HOSPITAL OR THE HEALTH CENTRE IMMEDIATELY.





THE BADLY-FED CHILD

3. OR THE CHILD HAS SWOLLEN LEGS, FEET AND HANDS

- 3.1 He is sad  
he has diarrhoea, he is not hungry  
his hair and also his skin change colour

BE CAREFUL: it is serious, this child has not been eating what he  
should have been eating for a long time,

SEND HIM TO THE HOSPITAL OR THE HEALTH CENTRE IMMEDIATELY.

---

*A child who is just skin and bone or a child who has swollen legs,  
feet and hands is a child who has been eating badly for a long time.*

*You should prevent children from reaching this serious state by  
weighing the children in your community regularly and by following their  
growth on their "growth chart".*

*When growth is not on "the right road", see if the mother feeds her  
child well or if the child is not ill.*

*It is by teaching mothers to feed their children well that the  
serious troubles of malnutrition will be avoided. See "The well-fed  
child" and talk to the mothers.*

---

Problem 4.1  
BURNS

# BURNS

---

YOU CAN GET BURNT BY FIRE, A RED-HOT OR BURNING  
OBJECT AND ALSO BY BOILING WATER OR OIL.

THE SERIOUS THING IN A BURN IS THE AREA IT COVERS.

BEFORE TREATING SOMEONE WHO HAS BEEN BURNT, WASH YOUR  
HANDS CAREFULLY, SO AS NOT TO DIRTY THE BURN.

---

BURNS

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

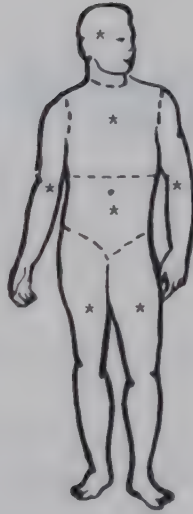
1. tell whether the burn covers a small or a large area
2. tell when a patient with burns should be sent to the hospital or health centre
3. tell whether the skin is covered with blisters only
4. tell whether the skin is broken or has been removed
5. clean a wound
6. treat blisters and skin which is broken or has been removed
7. treat a wound that smells bad or from which a yellowish fluid is coming out
8. tell the patient and his family how to prevent burns.

LARGE AREA

OR

SMALL AREA

?



EACH AREA MARKED WITH \*

= LARGE AREA



HERE,  
SMALL AREA  
OF THE  
SKIN BURNT



PART OF THE FOREARMS  
COVERED IN BLISTERS

BURNS

B U R N S

either

1. A large area of the skin is burnt
- OR 2. A small area of the skin is burnt
  - 2.1 The patient comes to see you less than 24 hours after the burn
  - 2.2 The patient comes to see you more than 24 hours after the burn.

A large area of the skin is burnt when more than one arm, or more than one leg, or more than the head, or more than half the back, or more than half the chest has been burnt (see <sup>\*</sup> of the drawing). Otherwise, it is a small area of the skin.

1. IF A LARGE AREA OF THE SKIN IS BURNT

- 1.1 Lay the patient down on a stretcher,
- 1.2 Cover the burnt part with a clean cloth,
- 1.3 Give the patient plenty of water to drink,
- 1.4 Give him, if possible, an injection of PENICILLIN in the buttocks (see page 238)
- 1.5 Send him to the hospital or the health centre,
- 1.6 Show the people in the village how to avoid burns (see drawings page 99 , and 2.2.3)

2. IF A SMALL AREA OF THE SKIN IS BURNT

- 2.1 The patient comes to see you less than 24 hours after the burn:
  - 2.1.1 The skin is covered with watery blisters only:
    - Wash gently with soapy water and a clean cloth
    - Cover with IODINE or GENTIAN VIOLET without breaking the blisters
    - Put on a loose dressing (see drawing)
    - Tell the patient not to take the bandage off, or to dirty it



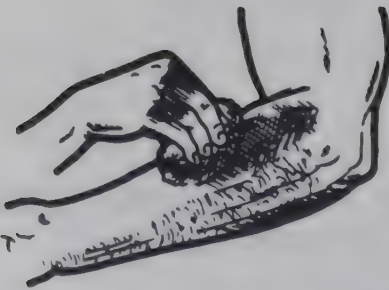
A SMALL AREA OF THE SKIN  
IS BURNT



The skin is covered  
in blisters



Wash gently with  
soap and water



Cover with IODINE



Loose dressing



BE CAREFUL:

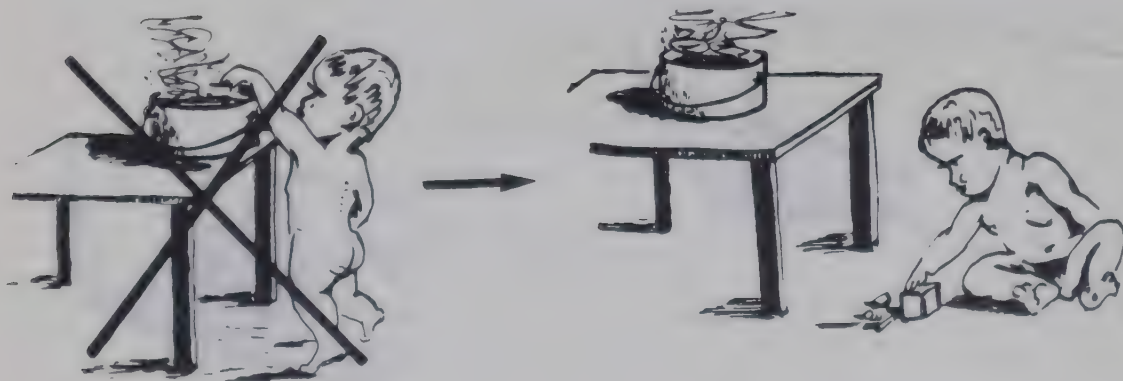
- REMEMBER THAT IT IS MAINLY CHILDREN WHO GET BURNT BECAUSE THEY DO NOT REALIZE THE DANGER:

\* A FIRE WITH NO GUARD ROUND IT

\* BOILING WATER

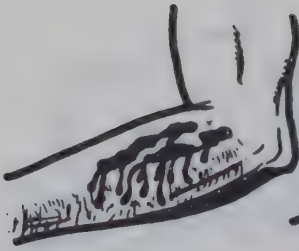
- TEACH PARENTS HOW THEY CAN PROTECT THEIR CHILDREN FROM THESE DANGERS

THEN, YOU WILL HAVE FEWER BURNS TO TREAT.



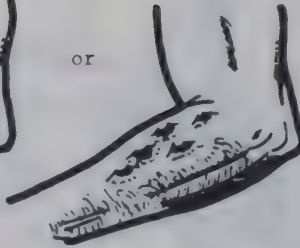
TEACH PEOPLE HOW TO AVOID BURNS

After a week you  
undo the bandage



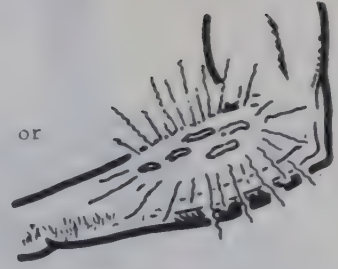
The skin is bleeding

or



The skin is torn

or



The skin smells bad



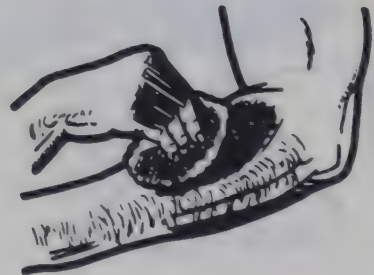
Wash with salty water



Cover with IODINE



put on a dressing



Repeat the same treatment  
every 2 days

BURNS

- Take the dressing off after a week:
    - if the skin smells bad or if there is liquid coming out of it, see 2.1.2
    - if the skin does not smell bad and if it is dry, leave the skin uncovered, the patient will get better by himself.
  - Teach the people in the village how to avoid burns (see drawings, page 99, and 2.2.3)
- 2.1.2 The skin is covered in blood, or it is broken or it smells bad a week after having been bandaged
- Wash gently with salty water and a clean cloth
  - Cover the skin with IODINE or GENTIAN VIOLET
  - If it is an arm or a leg, place the burnt limb on a clean cloth soaked in salty water
  - If it is another part of the body, pat with a clean cloth soaked in salty water
  - Leave the skin uncovered but ask the patient to avoid letting flies settle on the burnt skin
  - Give the patient an injection of PENICILLIN every day for 5 days (see page 238)
    - if you have no Penicillin, give him SULFADIAZINE tablets (see page 239)
    - and do not forget to tell the patient to drink plenty of water while he is taking Sulfadiazine tablets
  - Repeat treatment of the skin every 2 days until a thin scab covers the wound
  - Then put on a bandage (see drawing)
  - If the patient is feverish after a week, send him to the hospital or the health centre
  - Teach the people in the village how to avoid burns (see drawings, page 99, and 2.2.3).

2.2 The patient comes to see you more than 24 hours after the burn:

2.2.1 Wash the skin with warm water and soap, gently trying to rub off the dirt on the skin with a clean cloth until the skin starts bleeding a little,

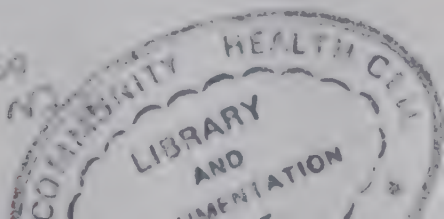
2.2.2 Then follow the instructions in 2.1.2

2.2.3 Teach the people in the village how to avoid burns (see drawings, page 99 )

- Show them how to put stones round the fire as a guard
- Show them how to keep hot water out of the reach of children.

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Problem 4.2  
WOUNDS

# WOUNDS

---

IT IS SAID THAT THERE IS A WOUND WHEN THE SKIN IS CUT OR TORN.

ANY WOUND SHOULD BE CAREFULLY CLEANED AND THEN PROTECTED WITH A BANDAGE.

WOUNDS MAY ALSO MAKE THE PATIENT VERY TIRED AND WEAK, AND IN THAT CASE YOU SHOULD MAKE HIM DRINK AND SEND HIM TO THE NEAREST HOSPITAL OR HEALTH CENTRE.

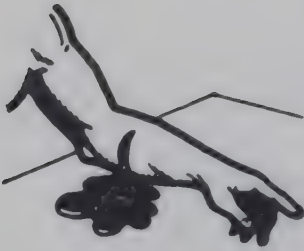
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LEARNING OBJECTIVES

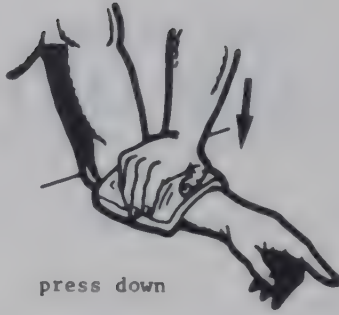
At the end of his training, the PHW should be able to:

1. stop blood flowing from a wound by pressing on the wound
2. decide whether the flow of blood from a wound is very heavy or not
3. recognize the major signs of extreme weakness
4. decide when a wounded person should be sent to the hospital or health centre
5. clean a wound, put disinfectant on it and put on a dressing
6. bring the edges of a deep wound together in a straight line using either clips or sticking plaster
7. keep an eye on a patient who has had a heavy blow on the head, belly or chest
8. put a bandage round a dressing
9. tell a person with a wound what he must do when he goes home after his initial treatment
10. treat an old wound from which a yellowish fluid is coming out
11. describe the three major signs of extreme weakness
12. prepare and clean equipment.





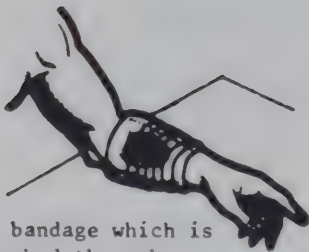
The wound is  
bleeding a lot



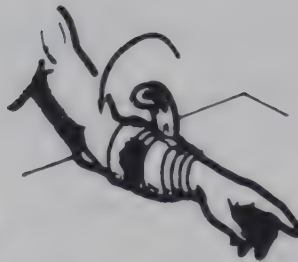
press down



tight bandage



a bandage which is  
soaked through



put another bandage on top  
of the first one



WOUNDS

*The questions which you should ask yourself:*

1. *Is the patient losing a lot of blood through the wound?*
  - 1.1 *Yes*
  - 1.2 *No*
2. *Is there something serious underneath the wound?*
  - 2.1 *Is there a broken bone?*
  - 2.2 *Has the patient received a blow on the head, the chest or the belly?*
  - 2.3 *Is the patient weak, very tired?*
3. *How are you going to treat the wound?*

EXAMINE THE PATIENT AND ASK YOURSELF ?

1. IS THE PATIENT LOSING A LOT OF BLOOD THROUGH THE WOUND ?

1.1 Yes

Then. you should:

- 1.1.1 Press down hard on the wound with a clean cloth to stop the blood from coming out
- 1.1.2 Keep pressing for a few minutes, then take the cloth off and look to see if the blood is still coming out
- 1.1.3 If the bleeding has stopped, see if the patient is weak and very tired. See 2.3 and treat the wound(s).  
(See 3)
- 1.1.4 If the bleeding continues, do as in 1.1.1 and make a tight bandage around the place which is bleeding and see 1.1.3
- 1.1.5 If the blood is coming out through the bandage, wind another bandage round, tighter than the first one
- 1.1.6 Make the patient drink plenty of water and send him to the hospital or the health centre on a stretcher.

1.2 No (there is a little blood coming out of the wound(s) )

- 1.2.1 See if the patient is weak, very tired (see 2.3)
- 1.2.2 Treat the wound(s), (see 3.)

WOUNDS

2. IS THERE SOMETHING SERIOUS UNDERNEATH THE WOUND?

2.1 Is there a broken bone?

If so, see Problem 4.3 "Fractures" (page 112)

2.2 Has the patient received a blow on the head, the chest or the belly?

If so, find out if the patient is feeling weak and tired

If so, see Problem 6.7 page 187.

If not, treat the wound(s)

see the patient again twice a day. If the patient then becomes very tired, send him to the hospital or the health centre,

If not, look after the wound(s).

If not, see 3.

2.3 Is the patient weak, very tired?

2.3.1 Yes

Then:

- Make the patient drink plenty of water and send him to hospital or the health centre immediately
- See Problem 6.7 "Weakness and tiredness".

2.3.2 No

Treat the wound(s). (See 3)

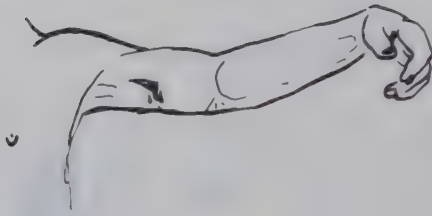
3. HOW TO TREAT THE WOUND?

3.1 It is a small wound

1. Wash the wound with soap and water, using a compress  
(See No 1 of the drawing)
2. Take off the dirt and shave off any hair all around the wound
3. Put IODINE or GENTIAN VIOLET on the wound and all around the wound (see No 2 of the drawing)
4. Cover the wound completely with a clean piece of cloth and fasten the clean cloth with sticking plaster, or a string, or a cord or a piece of creeper (see No 3 and 4 of the drawing)
5. Tell the patient not to dirty his bandage or to take it off
6. Take the bandage off after 5 days
7. When you take the bandage off on the 6th day, if the wound smells bad or if there is liquid coming out of the wound or if the patient is feverish, see 3.2 - 6.

HOW TO CLEAN A WOUND:





**SMALL WOUND**



**SMALL DRESSING**

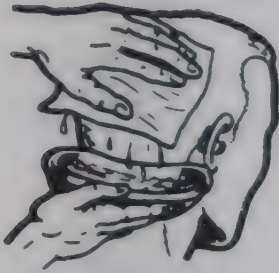
how to close a wound:

with

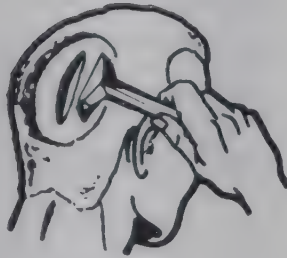


**STICKING  
PLASTER**

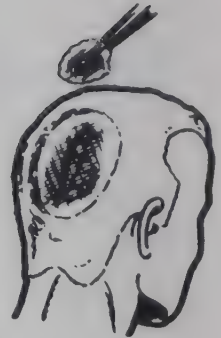




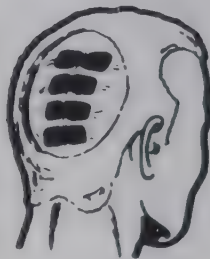
clean (soap and water)



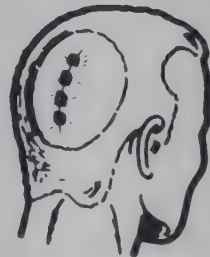
shave



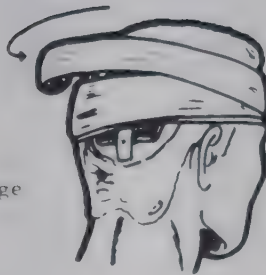
put on IODINE



clips



cover with a bandage





WOUNDS

3.2 It is a large wound (over 5 centimetres)

1. Wash the wound with soap and water, using a compress
2. Clean off the dirt and shave off any hair around the wound
3. Put IODINE or GENTIAN VIOLET on the wound and all around the wound
4. Close up the edges of the wound with sticking plaster (see drawing)
5. Cover the whole of the wound with a clean piece of cloth and fasten it with sticking plaster, or a string, or a cord, or a piece of creeper and ask the patient not to take the bandage off or to dirty it
6. Give the patient one injection of PENICILLIN every day for 3 days
  - children: 500 000 units
  - adults: 1 000 000 unitsif you have no Penicillin, give SULFADIAZINE tablets
  - children: 1 tablet morning, noon and night for 3 days
  - adults: 2 tablets 4 times a day for 3 days.
7. Take the bandage off after 5 days:
  - 7.1 The wound smells bad or liquid is coming out of the wound or the patient is feverish
    - Wash the wound with salty water
    - Leave it to dry and then put IODINE or GENTIAN VIOLET on the wound and around the wound and make a bandage which you will change every 2 days
    - Give an injection of PENICILLIN or give SULFADIAZINE tablets as in 3.2 - 6
    - Do not forget to change the bandage every 2 days
    - If after a week, the wound still smells bad or if liquid is still coming out of the wound or if the patient is still feverish, send the patient to the hospital or the health centre
    - If not, just put on a new bandage every 5 days until the wound is healed
  - 7.2 The wound does not smell bad, there is no liquid coming out of the wound and the patient is not feverish
    - Cover with IODINE or GENTIAN VIOLET
    - Put a bandage on and change it every 5 days until the wound has healed.

WOUNDS

BE CAREFUL:

YOU SHOULD PREVENT ALL WOUNDS FROM LATER BECOMING WOUNDS

- \* WHICH SMELL BAD
- \* WHICH PRODUCE A YELLOWISH LIQUID
- \* WHICH MAKE THE PATIENT FEVERISH.

TO DO THIS,

- WASH YOUR HANDS CAREFULLY WITH SOAP BEFORE TOUCHING  
A WOUND
  - WASH THE WOUND CAREFULLY BEFORE COVERING IT WITH A  
BANDAGE
  - WASH YOUR HANDS AGAIN ONCE YOU HAVE PUT ON THE  
BANDAGE.
-

Problem 4.3  
FRACTURES

# FRACTURES

---

WE SAY THAT THERE IS A FRACTURE WHEN THERE IS A  
BROKEN BONE.

YOU WILL THINK THAT THERE PROBABLY IS A BROKEN BONE IF,  
AFTER A FALL OR A VIOLENT BLOW:

- THE PATIENT IS NOT ABLE TO MOVE THE LIMB
  - IT HURTS A LOT WHEN THE PATIENT TRIES TO MOVE THE  
LIMB
  - IT HURTS A LOT WHEN YOU PRESS YOUR HAND ON THE PART  
THAT HAS BEEN HIT
  - THE LIMB IS OUT OF SHAPE.
-

FRACTURES

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. find out from the patient
  - how the accident happened
  - where he feels pain
2. examine a patient. Tell if he can move his limbs, whether he is breathing properly or whether he is fully conscious
3. tell whether one of the patient's limbs (upper arm, fore-arm, hand, foot, lower leg or thigh) is out of shape or not
4. decide whether a bone is broken or not by using both hands to move a limb about
5. straighten a broken bone by stretching the limb gently
6. raise a limb in which the bone is broken and slide a flat length of wood (splint) under it
7. put a bandage round the broken limb and the splint in such a way as to prevent the limb from moving
8. tell what kind of fracture must be sent to the hospital or health centre
9. tell how much time should pass before you see the patient again
10. say what you should tell the patient or his family to do during the time before your next visit to the patient
11. give medicine or injection as required.



After  
a fall  
an accident  
or a blow



this man  
cannot move  
his forearm any more



his forearm hurts  
a lot when you  
press on it



when the leg  
is broken it is  
often out of shape

## FRACTURES

*When you think that your patient has a broken bone, you should:*

1. *First look to see if there is a wound in addition to the fracture (cut or torn skin, sometimes you can see the bone), because you should treat the wound first*
2. *Secure the broken limb before moving the patient, so as not to make the fracture worse.*

### 1. IF THERE IS NO WOUND IN ADDITION TO THE FRACTURE

#### 1.1 Either it is a broken thigh:

- 1.1.1 Give ASPIRIN tablets for the pain
  - children:  $\frac{1}{2}$  tablet morning, noon and night
  - adults: 1 or 2 tablets morning, noon and night
- 1.1.2 Secure the limb by:
  - gently putting the limb back into its normal position if it is out of shape
  - putting pieces of wood (splints) underneath and on top of the broken limb
  - winding a tight (but not too tight) bandage around the splints and the broken limb (see drawing)
- 1.1.3 Make the patient drink plenty of water
- 1.1.4 Send him to the hospital or the health centre

#### 1.2 Or it is a broken arm, forearm, leg or fingers

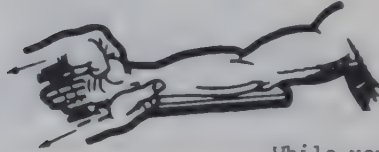
- 1.2.1 Give ASPIRIN tablets for the pain (see 1.1.)
- 1.2.2 Secure the limb as explained in 1.1.2
- 1.2.3 Tell the patient to rest at home and not to use the broken limb, but to move the fingers and toes
- 1.2.4 Tell him to come back in two months' time to have the wooden splints taken off:
  - if the patient comes back in the meantime because he is feverish or has pains in the end of the limb, send him to the hospital or the health centre
- 1.2.5 Make the limb move after you have taken the splints off:
  - if, after a week, the patient is beginning to use his limb normally, he is cured
  - if not, send him to the hospital or the health centre-



If the forearm  
is broken



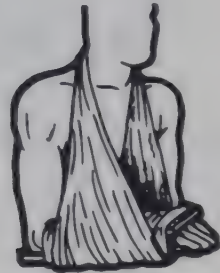
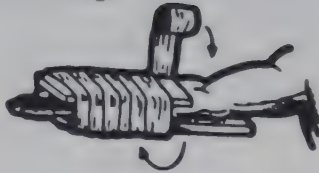
Pull gently to put  
the forearm back into  
its normal position



While you are pulling the forearm,  
place it between two splints



wind a fairly tight bandage  
round it



hold up the  
forearm and elbow



if it is a broken thigh or leg,  
do it this way

FRACTURES

- 1.3 Or it is another part of the body which is broken (chest - back - pelvis - head)
    - 1.3.1 Give ASPIRIN tablets for the pain (see 1.1.1)
    - 1.3.2 Send the patient to the hospital or the health centre  
if - he continues to complain of bad pains  
if - he is very tired and weak (see the signs of great weakness, Problem 6.7, page 187)
  2. IF THERE IS A WOUND IN ADDITION TO THE FRACTURE
    - 2.1 Clean the wound with warm salty water and wipe the dirt off
    - 2.2 Cover the wound with IODINE or GENTIAN VIOLET and make a bandage  
(see technique page 238)
    - 2.3 Give an injection or PENICILLIN  
If you have no Penicillin, give SULFADIAZINE tablets for 3 days  
(see 239 )
    - 2.4 Give ASPIRIN tablets (see 1.1.1)
    - 2.5 Give the treatment described in 1.1.2
    - 2.6 Then send the patient to the hospital or the health centre.
-

Problem 4.4  
BITES

# B I T E S

---

YOU CAN BE BITTEN BY A DOG OR BY A SNAKE. A  
SNAKEBITE IS ALWAYS DANGEROUS: THE PATIENT SHOULD BE TREATED  
AS QUICKLY AS POSSIBLE.

A DOGBITE IS ONLY DANGEROUS IF THE DOG IS BEHAVING IN  
A STRANGE WAY.

YOU SHOULD TREAT ANY OTHER KIND OF BITE AS YOU WOULD  
TREAT A WOUND.

---

BITES

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. treat the wound caused by a dog bite
2. list four strange signs in a dog's behaviour
3. find out whether the dog which has bitten is known or not
4. decide whether the behaviour of the dog which has bitten has changed
5. describe the signs when a person bitten by a dog should be sent to the hospital or health centre
6. treat a person who has been bitten by a snake
7. described the usual treatment given by the villagers
8. organize group discussions in the village to discuss a snake bite and a dog bite.

BITES

THE PATIENT HAS BEEN BITTEN:

- EITHER BY A DOG
  - OR BY A SNAKE.
- 

1. IF THE PATIENT HAS BEEN BITTEN BY A DOG

1.1 First of all look after the person who has been bitten

- 1.1.1 Clean the wound with soap and water
- 1.1.2 Then cover the wound with IODINE
- 1.1.3 Put a bandage on
- 1.1.4 Never close the wound with sticking plaster

1.2 Ask if someone knows the dog which bit the patient

1.2.1 Someone knows the dog: it is the family dog or a neighbours' dog,

Ask for this dog to be watched for 10 days

If the dog no longer eats:

or if it no longer barks in its usual way

or if it trembles, becomes savage, never stops barking,

or if it has convulsions, if saliva runs out of its mouth,

Then have the dog killed and send the person who has been bitten to the hospital or the health centre immediately,

If the dog stays healthy, do nothing more.

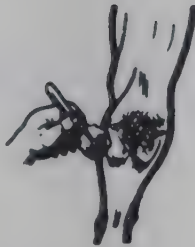
1.2.2 No one knows the dog which bit the patient: it is a dog which does not belong to the village

In this case, send the person who has been bitten to the hospital or the health centre.

by a dog



clean wound with  
soap and water



paint wound with  
IODINE

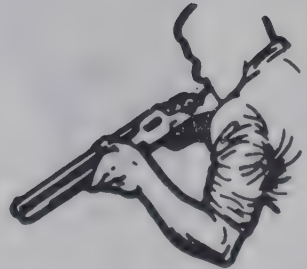


put on a  
dressing



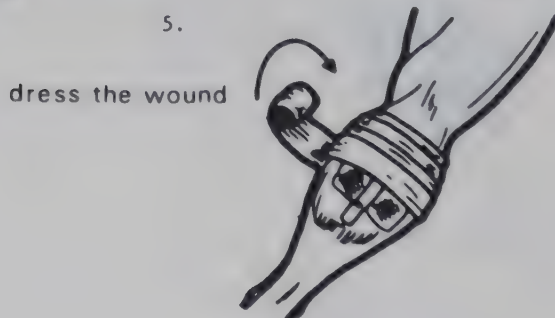
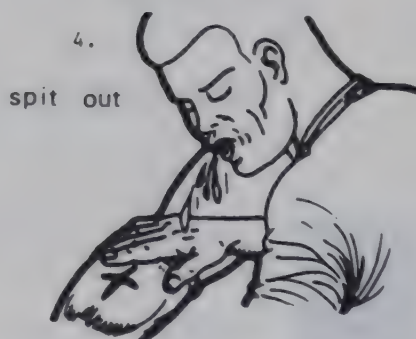
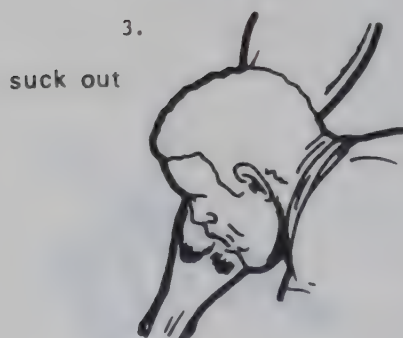
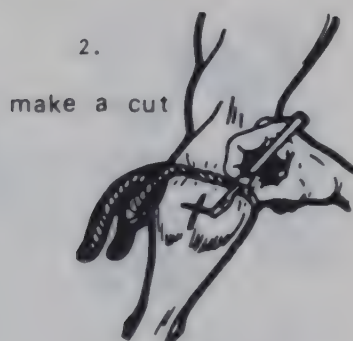
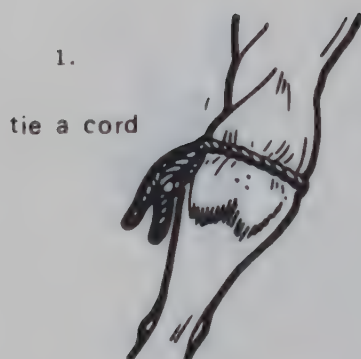
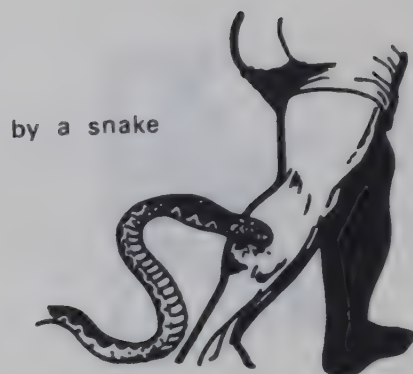
if the dog is NOT normal

NOT under  
control



have the dog  
killed





BITES

2. IF THE PATIENT HAS BEEN BITTEN BY A SNAKE

- 2.1 Tie a cord tight around the limb just above the bite (see drawing)
- 2.2 Using a razor-blade or a clean knife, make a cut 1 cm deep
- 2.3 Suck the liquid which is coming out of the wound, spitting out the liquid which you have sucked immediately
- 2.4 After you have sucked out the liquid for 5 to 10 minutes, loosen the cord tied around the limb
- 2.5 Disinfect the wound and make a bandage  
Give an injection of one ampoule of antivenom (medicine against snake poison) if you have some
- 2.6 Send the patient to the hospital or the health centre.

*N.B. In some villages, people sometimes know how to cure snakebites. Talk about it with the people who know. If you have no antivenom, their methods may work well (porous stone placed on the bite, for example).*

B E C A R E F U L :

A SNAKEBITE OR A DOGBITE (see 1.2.1, page 120) IS DANGEROUS AND MAY CAUSE DEATH.

SNAKES HIDE IN BUSHES OR IN BETWEEN THE ROCKS EXPOSED TO THE SUN. WALK CAREFULLY IN THESE PLACES AND IF POSSIBLE, WEAR SHOES.

SICK DOGS OFTEN BITE PEOPLE AND OTHER ANIMALS. DO NOT GO NEAR THEM. ALL DOGS WHICH WANDER AROUND THE COUNTRYSIDE MAY BE DANGEROUS. DO NOT WALK AROUND WITHOUT CARRYING A STICK.

EXPLAIN TO PEOPLE HOW TO RECOGNIZE SICK DOGS. TELL THE OTHER PEOPLE IN THE VILLAGES AND THEIR CHIEFS IF SOMEONE HAS BEEN BITTEN BY A SICK DOG, BECAUSE IT MAY BITE OTHER PEOPLE LATER ON.

TEACH YOUR CHILDREN TO KEEP AWAY FROM SICK DOGS AND SNAKES.

---

Problem 5.1  
WATER SUPPLY

# WATER SUPPLY

---

DIRT MAY CAUSE DISEASE. IF YOU WASH WITH CLEAN WATER,  
THE DIRT ON YOUR BODY WILL COME OFF. IF YOU DRINK ONLY  
CLEAN WATER, DIRT WILL NOT GET INSIDE YOUR BODY.

IF YOU WANT TO BE HEALTHY, FIND ALL THE WAYS OF GETTING  
AS MUCH CLEAN WATER AS POSSIBLE.

TO HAVE CLEAN WATER, EITHER TAKE WATER FROM A PROTECTED  
SPRING OR A WELL, OR BOIL ANY OTHER WATER BEFORE YOU DRINK  
IT.

---

WATER SUPPLY

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. find the place where villagers go to get water for drinking and for washing themselves
2. tell which pond or river water can be good for drinking
3. recognize whether water from a spring or well is good for drinking
4. indicate to the people the danger of drinking dirty water
5. indicate to the people how they can get clean water from a spring or well.

The water in a POND



Do not bathe in it



Look for another place to get water  
with the village chief



Advise people not to use  
water from the pond



Always boil the water  
before you drink it

## WATER SUPPLY

*The people in the village have asked you how they can get clean water or your supervisor has asked what you have done about this problem since his last visit.*

### W H A T   D O   Y O U   D O ?

*See where the people get the water they use and decide on what action to take.*

*The people use:*

1. *water from a pond*
2. *water from a river*
3. *water from a spring*
4. *water from a well.*

#### 1. WATER FROM A POND

##### 1.1 There is no other place to get water from

- 1.1.1 Tell people to boil the water before they drink it
- 1.1.2 Advise people not to bathe in this water
- 1.1.3 See the village chief to find some other way of getting water (see 3 and 4)

##### 1.2 There is another place to get water from (river, spring or well)

Advise the people not to use water from the pond if the other place to get water from is not too far away and to leave the pond for the cattle.

#### 2. WATER FROM A RIVER

##### 2.1 If there is no other place to get water from, you should:

- 2.1.2 Draw water from the river before it reaches your village (see drawing on page 128, point No 1). Tell people to boil the water before they drink it
- 2.1.2 Let people bathe in the river at the place where it leaves the village and only let the animals drink the water even further down the river (see drawing on page 128, points 2 and 3)
- 2.1.3 Let people bathe in the river if your supervisor says they can.

##### 2.2 There is a spring or a well

See 3 or 4.



WATER from a RIVER



A properly protected SPRING

## WATER SUPPLY

### 3. WATER FROM A SPRING

#### 3.1 The spring is properly protected if: (see drawing)

- 3.1.1 there is a fence all the way round it about 20 metres away from the spring
- 3.1.2 there is a ditch around the spring to let the rainwater drain away
- 3.1.3 there is a 50 cm high cemented stone wall round the spring
- 3.1.4 there is a pipe coming out of this wall and the water is taken from this pipe

#### 3.2 If the spring is not properly protected or if no spring is being used

- 3.2.1 go and see the village chief and help the village to get properly protected spring-water
- 3.2.2 see your supervisor if you cannot arrange to get water from a spring or protect it properly

#### 3.3 If the village wants to bring the water to the village along pipes:

See your supervisor.

### 4. WATER FROM A WELL

#### 4.1 A well is properly protected if: (see drawing, page 130)

- 4.1.1 It is situated at least 20 metres away from a latrine or from a rubbish heap
- 4.1.2 It is at least 3 metres deep
- 4.1.3 It is lined inside with stones stuck with mortar
- 4.1.4 It is surrounded by a stone wall which is about 50 cm high
- 4.1.5 There is a ditch for the rainwater to drain away
- 4.1.6 People do not let dirt get into it and they do not wash in it

#### 4.2 If the well is not protected:

- 4.2.1 go and see the village chief to have the well protected
- 4.2.2 see your supervisor to choose the place for a new well

#### 4.3 If the village wants to make the well work better (by putting in a lever or a pump):

See your supervisor.

---



A properly protected WELL

Problem 5.2  
EXCRETA DISPOSAL

# EXCRETA DISPOSAL

---

YOU SHOULD NOT DEFECATE JUST ANYWHERE, BECAUSE STOOLS  
CARRY DISEASES.

YOU SHOULD THEREFORE DEPOSIT YOUR STOOLS IN PLACES  
WHERE NEITHER YOU, NOR CHILDREN, NOR ANIMALS, NOR FLIES CAN  
TOUCH THEM.

---

EXCRETA DISPOSAL

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. find out the places where the village people go to pass their stools
2. explain that it is dangerous to defecate just anywhere
3. give advice on why and how to build a latrine
4. decide whether or not a latrine is being properly used
5. teach the proper way to use a latrine.



## EXCRETA DISPOSAL

*The people in the village have asked you about having a good place for defecating or your supervisor has asked you what you have done, since his last visit, to improve the situation.*

### WHAT ARE YOU GOING TO DO?

*See where the villagers go to defecate and decide what action to take.*

- 1. The people use a latrine*
- 2. The people defecate around the house*
- 3. The people defecate in the river*
- 4. The people defecate in the fields or in the forest.*

#### 1. THE PEOPLE USE A LATRINE

##### 1.1 A latrine is being properly used if:

- 1.1.1 It is built at least 20 metres away from a house, a river, a well or a spring
- 1.1.2 the hole is at least 1 metre deep
- 1.1.3 the hole is covered with a slab (made of wood or concrete) which has a hole in the middle
- 1.1.4 the hole in the middle of the slab is covered with a lid
- 1.1.5 the latrine is covered by a roof and surrounded by a wall made of branches

##### 1.2 If the latrine is not being properly used

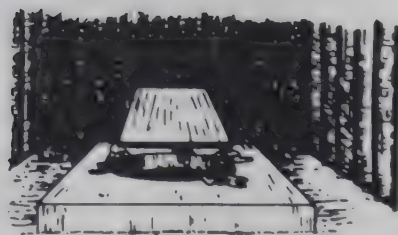
- 1.2.1 Give advice to the head of the family
- 1.2.2 See if there are any stools on the slab. If so, have it cleaned with water
- 1.2.3 Go and have a look now and then to see if the people are following your advice.





A PROPERLY BUILT LATRINE

the slab over the latrine  
must be kept clean



**DANGER**  
clean with water  
frequently

EXCRETA DISPOSAL

2. THE PEOPLE DEFECATE AROUND THEIR HOUSES

- 2.1 There is a danger of disease from the stools when people defecate less than 20 metres away from the house or on the paths which lead to the house
- 2.1.1 Advise the heads of families
- either to tell their family to defecate in the fields (see 4)
  - or to tell their family to defecate in a latrine (see 1)
- 2.1.2 See the village chief and ask him to speak to the people in the village. If he wants to build some latrines, see your supervisor and afterwards make sure that the latrines are being properly used (see 1.1)
- 2.2 There is no danger if the people defecate as far as possible from houses. However, advise the people not to defecate less than 20 metres away from the houses, see the advice to be given when people defecate in the fields or in the forest (see 4).

3. THE PEOPLE DEFECATE IN THE RIVER

Every time someone defecates in the river or less than 20 metres away from the river or on a path which leads to the river: it is dangerous. In that case, see the village chief:

- 3.1 ask him to talk to the people in the village
- 3.2 ask him to have latrines built (see 1.1).

4. THE PEOPLE DEFECATE IN THE FIELDS OR IN THE FOREST

- 4.1 There is little danger of disease if people defecate in the fields or in the forest provided that they do it:
- 4.1.1 more than 20 metres away from a house, a spring, a river or a well
- 4.1.2 far away from a path or a track
- 4.2 If the animals usually eat in the field where the people go and defecate, see your supervisor and the village chief  
In any case, advise the people to defecate in a little ditch and to cover their stools with some earth.

BE CAREFUL:

TO AVOID THE DISEASES CARRIED BY STOOLS,

DEFECATE

1. IN A LATRINE
2. OR ELSE, IN A HOLE FAR AWAY FROM THE HOUSE AND THEN COVER IT WITH EARTH
3. OR, ALWAYS FAR AWAY FROM THE RIVER, A WELL, A SPRING AND A PATH.

WHAT YOU SHOULD NOT DO:

WHY ?



too near the house



too near the path



too near the river

Problem 5.3  
WASTE DISPOSAL

# WASTE DISPOSAL

(or rubbish disposal)

---

YOU SHOULD NOT THROW AWAY WASTE JUST ANYWHERE, BECAUSE  
IT MAY CARRY DISEASE.

YOU SHOULD THEREFORE THROW WASTE IN PLACES WHERE NEITHER  
YOU, NOR CHILDREN, NOR ANIMALS, NOR FLIES CAN TOUCH IT.

---

WASTE DISPOSAL

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. find out the places where the village people generally go to throw their waste
2. decide whether the village pit is being properly used or not
3. explain to the village chief how the village pit should be used
4. decide whether or not waste is being properly disposed of outside houses
5. explain to the head of a family how to dispose of waste properly outside a house
6. decide whether or not it is dangerous to dispose of waste in the fields (or in the forest)
7. get in touch with his supervisor and ask him to come and help the villagers with his advice.

WHAT YOU SHOULD NOT DO



in the river



down a well

**DANGER**



near a spring

anywhere





## WASTE DISPOSAL

*The people in the village have asked you about having a good place in which to throw their waste or your supervisor has asked what you have done since his last visit to make sure that the people have a good place in which to throw their waste.*

### W H A T   A R E   Y O U   G O I N G   T O   D O ?

*See where the people go to throw their waste and decide on what action to take.*

- 1.   The people throw their waste into a common pit*
- 2.   The people throw their waste outside their houses*
- 3.   The people throw their waste near the river*
- 4.   The people throw their waste in the fields.*

### 1.   THE PEOPLE THROW THEIR WASTE INTO A COMMON PIT

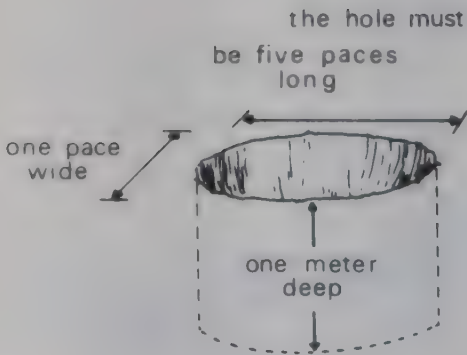
#### 1.1   The pit is being properly used when:

- 1.1.1   it is situated outside the village and about 20 metres away from a house
- 1.1.2   it is situated in a hollow and not on top of a hill
- 1.1.3   it is situated at least 100 metres away from a river, a well or a spring
- 1.1.4   the waste is piled up in a hole and not scattered around
- 1.1.5   the waste is covered with a layer of earth which is 2 to 3 centimetres thick
- 1.1.6   it is surrounded by a fence made of branches

#### 1.2   If the pit is not being properly used:

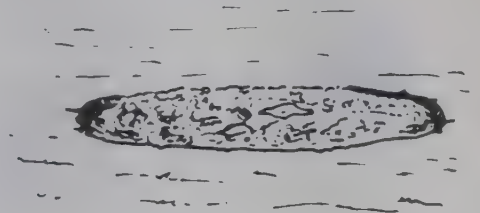
- 1.2.1   explain and show the village chief how to get a good common pit (see 1.1)
- 1.2.2   see if your advice is being properly followed by visiting it regularly.

# WHAT YOU CAN DO WITH WASTE



throw daily the waste in the pit  
and cover it with earth or leaves

bury it in a hole  
covered in earth



burn it



## WASTE DISPOSAL

### 2. THE PEOPLE THROW THEIR WASTE OUTSIDE THEIR HOUSES

#### 2.1 Waste is being properly disposed of when:

- 2.1.1 it is piled up in a hole and not scattered around
- 2.1.2 it is put at least 20 metres away from a house, a river, a spring or a well
- 2.1.3 it is covered with a little earth to stop animals and flies from coming and eating it

#### 2.2 If it is not properly disposed of:

- 2.2.1 explain and show the head of the family how to dispose of waste outside his house (see drawing)
- 2.2.2 advise the village chief to have a common pit dug
- 2.2.3 ask your supervisor to come and help in having the pit dug
- 2.2.4 see if the new pit is being properly used (see 1.1)

### 3. THE PEOPLE THROW THEIR WASTE NEAR THE RIVER

- 3.1 Go and see the village chief (2.2.2)
- 3.2 Go and see the head of the family (2.2.1)

### 4. THE PEOPLE THROW THEIR WASTE IN THE FIELDS

- 4.1 There is no danger provided that the waste is not piled up less than 100 metres away from the house, a river, a well or a spring
- 4.2 Otherwise, go and see the village chief (2.2.2)  
go and see the head of the family (2.2.1).

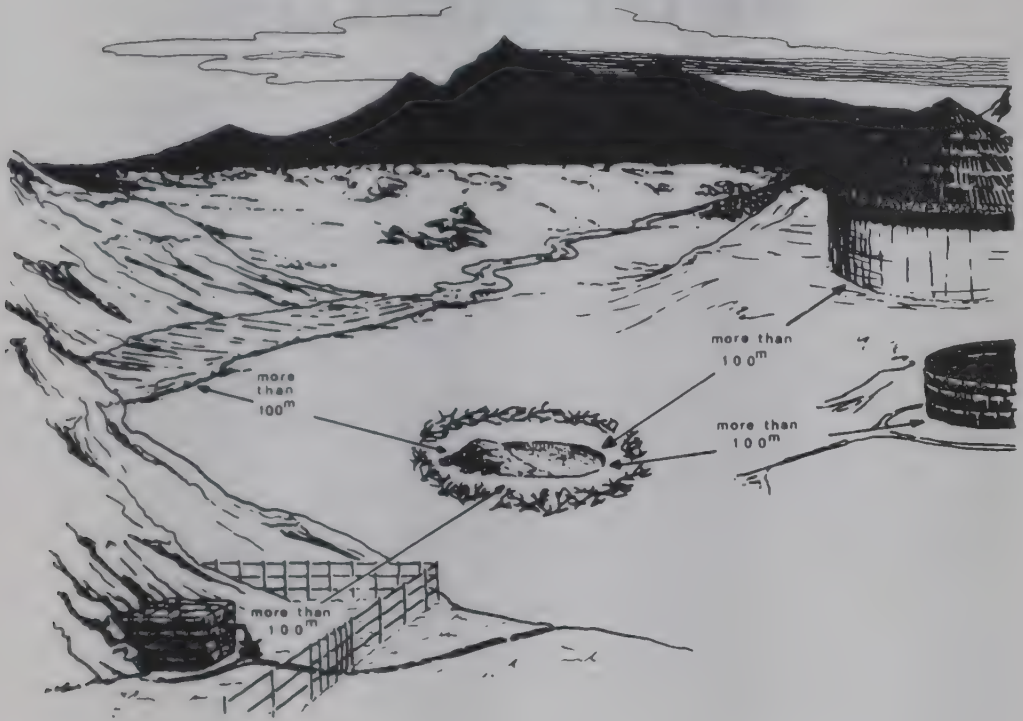
## BE CAREFUL:

\* TO AVOID THE DISEASES CARRIED BY WASTE

### GET RID OF IT

- 1. IN A HOLE FAR AWAY FROM YOUR HOUSE AND FROM THE WATER WHICH THE PEOPLE WILL DRINK
- 2. OR BY BURNING IT ONCE A WEEK.

\* IF YOU PUT NOTHING BUT THE WASTE WHICH COMES FROM PLANTS (LEAVES, VEGETABLES, FRUIT, ROOTS) IN A HOLE, YOU WILL SOON HAVE FERTILIZER FOR GROWING THINGS.



A WELL SITUATED COMMON PIT

Problem 5.4  
FOOD PROTECTION

# FOOD PROTECTION

---

FOOD IS VERY PRECIOUS, THEREFORE:

- YOU SHOULD NOT WASTE IT OR LET IT GO BAD

- BUT YOU SHOULD KEEP IT CLEAN.

---

FOOD PROTECTION

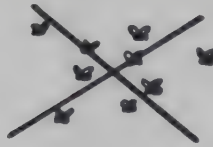
LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. find out what kinds of food the village people generally eat
2. list four ways to store grain to protect from rats
3. list three precautions to look for when buying food from a trader
4. demonstrate to the housewife to store food in the house
5. show how hands should be washed
6. show how to cook or boil food
7. show how to put food on a clean plate.



THIS IS A GRAIN STORE WHICH  
IS PROPERLY PROTECTED  
against rats and other animals



covered dish  
out of animals' reach



food stored  
in a protected place

## FOOD PROTECTION

There are at least 5 new patients with diarrhoea in one week or your supervisor has asked you what you have done since his last visit to have the village food protected or you have noticed that the food was stored carelessly.

### WHAT ARE YOU GOING TO DO ?

See what the people eat and how they prepare their food and decide on what action to take.

#### 1. WHAT DO THE PEOPLE EAT ?

- 1.1 grain
- 1.2 other foods

#### 2. HOW DO THEY PREPARE THEIR FOOD ?

#### 1. WHAT DO THE PEOPLE EAT ?

##### 1.1 Grain (wheat, or rice, or millet ...)

- 1.1.1 The grain store is properly protected against rats if
  - 1. the grain is kept in a place which is closed in on all sides
  - 2. this place is raised at least 30 centimetres above the ground
  - 3. there is no grain or any other food lying around near this place or near the house
  - 4. there is a lid which closes this place properly (see drawing)
- 1.1.2 If the grain store is not properly protected against rats:
  - 1. Show the head of the family what to do (see 1.1.1)
  - 2. If there are still some rats about one month afterwards (someone has seen rats or signs of rats), see your supervisor

##### 1.2 Other foods (meat, bread, milk, eggs, ...)

- 1.2.1 The food bought from a trader is clean if
  - 1. it is kept away from the sun
  - 2. it is covered with a cloth or protected from flies
  - 3. the trader's hands are clean and his place is cleanOtherwise, show the trader what to do and come and see once in a while if your advice is being followed
- 1.2.2 The food is properly stored in the house if
  - 1. it is put in a container covered with a cloth
  - 2. it is put in a high place in a cool part of the house (see drawing)Otherwise, show the mother what to do

#### 1.3 Little grain and other foods: see "Foodstuffs" page 220.



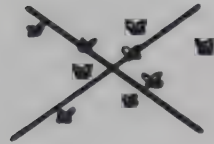
Wash your hands well  
(with soap and water)



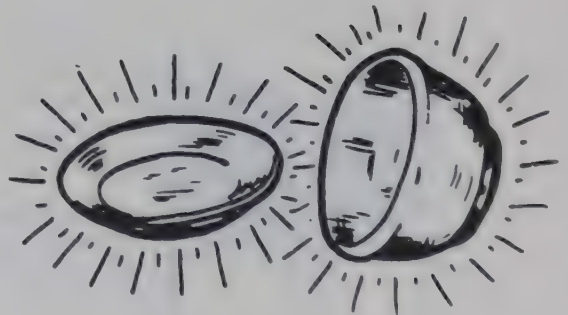
Cook the food well



food on plates and dishes  
on a clean table



no flies!



clean pots and bowls

## FOOD PROTECTION

### 2. HOW DO THE PEOPLE PREPARE THEIR FOOD ?

To prepare food properly, you should:

- 2.1 wash your hands before touching the food
  - 2.2 either cook, or boil the food and peel off the skin of all fruits
  - 2.3 serve it and store it cleanly once it has been prepared
- 
- 2.1 To wash your hands properly: you should rub your hands with clean water and soap
    - 2.1.1 Show the women who are preparing food at home how to do this
    - 2.1.2 Show the people in the restaurant how to do this
    - 2.1.3 Go and see the village chief for him to ask the people to wash their hands, especially after they have been to the toilet and before they touch food
  - 2.2 To cook or boil the food: you should:
    - put the food in a clean container and
    - leave the food over a hot fire for  $\frac{1}{2}$  of an hour, especially water from the pond, from the river, milk and meatTherefore, see 2.1.1 and 2.1.2
  - 2.3 To serve and store cleanly the food which has been prepared: you should:
    - put the food in a clean container, that is to say rinsed in clean water
    - store it properly in the house (see 1.2.2)Therefore, see 2.1.1 and 2.1.2.

### B E C A R E F U L :

CLEAN FOOD BRINGS HEALTH TO ALL THE FAMILY.

#### \* To avoid wasting this food:

PREVENT flies, worms, rats and animals from coming and eating it before you do

#### \* To keep food clean:

PREVENT things (dust from the house and the road, flies, cloth, mice, children's or adult's hands) from touching what you are going to eat.

PROTECT YOUR FOOD AGAINST THE SUN, THE WIND, THE RAIN.

Problem 6.1  
SKIN DISEASES

# SKIN DISEASES

---

PEOPLE WHO HAVE SKIN DISEASES BUT NO OTHER SIGNS OF SICKNESS SHOULD WASH THEIR SKIN, COVER IT WITH A MEDICINE AND KEEP THEIR HANDS VERY CLEAN.

PEOPLE WHO HAVE A HIGH TEMPERATURE AS WELL AS A SKIN DISEASE SHOULD BE GIVEN A MEDICINE TO BE TAKEN BY MOUTH OR TO BE INJECTED INTO THE BUTTOCKS AND ANOTHER MEDICINE TO PUT ON THE SKIN.

---



SKIN DISEASES

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. find out whether an accident has been the cause of the skin problem
2. decide whether the skin condition covers a small or large area
3. recognize when there is a lump (or a swelling) underneath the skin
4. tell if the skin is covered with red spots, or red patches or blisters or scabs
5. treat a patient who is feverish and has red spots covering a large area of skin
6. treat a patient who is feverish and has blisters and scabs over a large area of skin
7. tell whether a patient has been scratching his skin
8. treat a patient who scratches his skin, when there are no scabs
9. treat a patient who scratches his skin, when a large area of the skin is covered by scabs
10. treat a patient who scratches a small area of his skin
11. treat a patient whose skin is covered with small scabs that have fluid coming out from underneath them
12. decide when a patient with a skin problem should be sent to the hospital or health centre
13. talk with village people about how to prevent skin problems.

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SKIN DISEASES

*How did the skin disease start?*

1. *after an accident?*

2. *not after an accident:*

2.1 *the patient is feverish*

2.1.1 *a small area of the skin is affected*

2.1.2 *a large area of the skin is affected*

2.2 *the patient is not feverish*

2.2.1 *it itches*

2.2.2 *it does not itch.*

1. IT IS AFTER AN ACCIDENT

See Problems: 4.1 "Burns"

4.2 "Wounds"

4.3 "Fractures".

2. IT IS NOT AN ACCIDENT

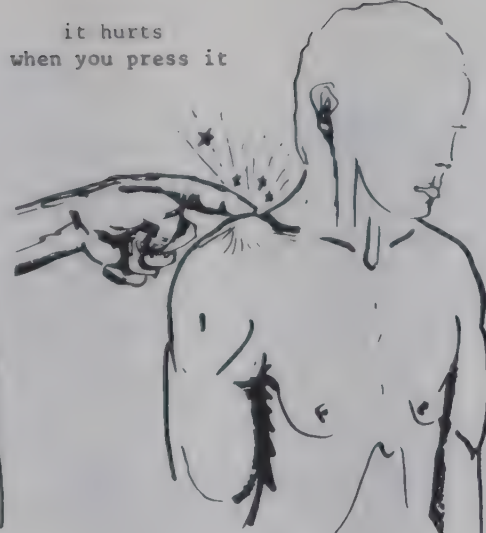
Take the patient's temperature (see page 240)

Either the patient is feverish

Or the patient is not feverish.



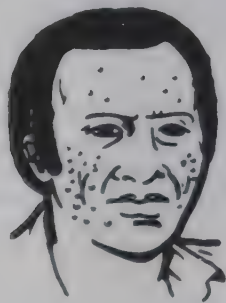
area of the skin  
smaller than a hand



it hurts  
when you press it



large surface  
with red spots



watery blisters  
on the skin



scabs  
on the skin



1. wash it



2. put on  
GENTIAN VIOLET

SKIN DISEASES

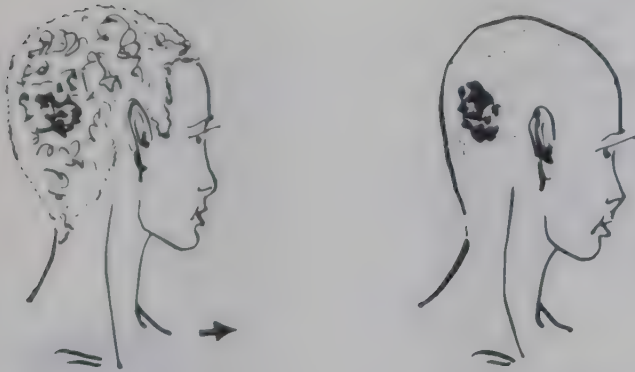
2.1 The patient is feverish

2.1.1 A small area of the skin is affected

1. if it is a lump which feels hot and which hurts when you press it with your finger, see Problem 6.9 "Lumps under the skin"
2. if it is something else, put on compresses of salty water 3 times a day. Put 1 tablespoonful of salt into one litre of water. And give SULFADIAZINE tablets for 3 days:  
children under 3 years: 1 tablet morning, noon and night  
adults: 2 tablets morning, noon and night.

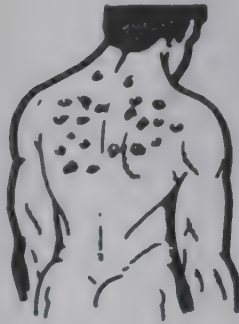
2.1.2 A large area of the skin is affected (more than the size of a hand)

1. There are red spots or patches
  - Give an injection of PENICILLIN every day for 3 days  
children: 500,000 units  
adults: 1,000,000 units
  - If you have no Penicillin, give SULFADIAZINE tablets  
children under 3 years: 1 tablet morning, noon and night  
children over 3 years: 2 tablets morning and night  
adults: 2 tablets morning, noon and night.
  - Always drink plenty of water with Sulfadiazine
  - See the patient again on the 4th day:  
he is no longer feverish: the patient is getting better  
he is still feverish: send the patient to the hospital or the health centre.
2. There are watery blisters or scabs, see drawing
  - Wash the skin with soap and water
  - Then put some GENTIAN VIOLET on the skin
  - Give PENICILLIN or SULFADIAZINE as stated above
  - See the patient again on the 4th day  
if he is still feverish: send him to the hospital or the health centre  
if he is no longer feverish: the patient is getting better.
3. There is a large wound. See Problem 4.2 "Wounds".

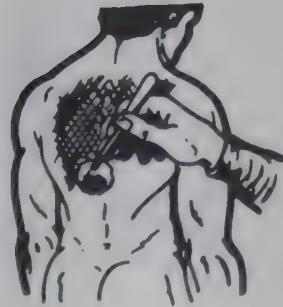


you should shave the hair on the head  
before you treat the scalp

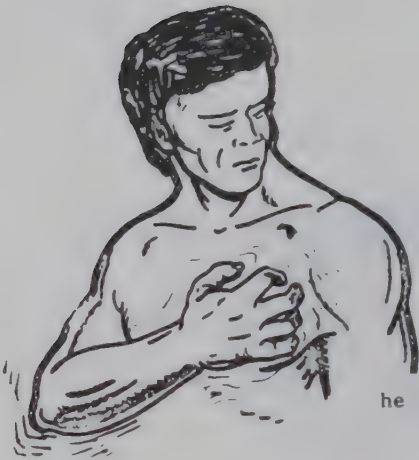
scabs



1. wash it



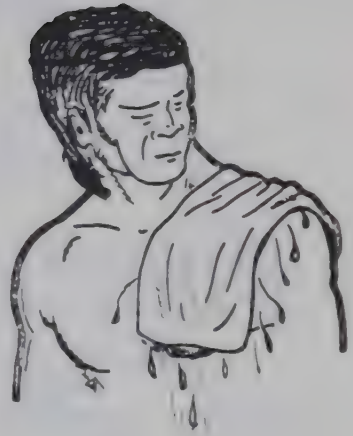
2. put on  
GENTIAN VIOLET



he is scratching  
himself



cut the nails



put on compresses of  
salty water 3 times a day



treat the whole family

SKIN DISEASES

2.2 The patient is not feverish

2.2.1 It is itching

1. A small area of the skin is affected

Put on compresses of salty water 3 times a day. Put 1 table-spoonful of salt in one litre of water. Do not wipe the skin. Leave it uncovered. Continue the treatment until it stops itching.

2. A large area of the skin is affected (larger than the size of a hand)

1. There are no scabs, but the patient has scratched his skin with his nails (see drawing)

- wash it with soap and water and cut the nails
- leave it to dry then cover with BENZYL BENZOATE, using a clean piece of cloth

- put on more BENZYL BENZOATE on the 2nd and 3rd day

- wash the patient's clothes in hot water

- ask him if there are other people with itchy skin in the family and if so, treat them.

2. There are scabs (see drawings, pages 153 and 155)

- wash the skin with soap and water and gently try to take scabs off

- leave the skin to dry then put on some GENTIAN VIOLET

- do the same thing again on the 3rd and 4th day

- when there are no more scabs, treat it as when there are no scabs (see preceding paragraph)

2.2.2 It is not itching

1. The skin is covered in small scabs and a yellow liquid comes out from under the scabs when you press them.

- wash the scabs with soap and water

- put some GENTIAN VIOLET on them

- repeat this treatment every day until there are no scabs left.

BE CAREFUL: if there are scabs on the head, shave the hair off before you wash them and before you put on GENTIAN VIOLET (see drawing, page 155).

2. If the skin has some other disease, send the patient to the hospital or the health centre.

BE CAREFUL:

TO AVOID MANY SKIN DISEASES:

1. DO NOT TOUCH THE DISEASED SKIN OF ANOTHER PERSON,
2. WASH YOUR HANDS AFTER YOU HAVE TOUCHED A DISEASED SKIN,
3. IF A MEMBER OF YOUR FAMILY HAS A SKIN DISEASE, GET HIM TREATED.



Problem 6.2  
EYE DISEASES

# E Y E

## DISEASES

---

YOU USUALLY CATCH EYE DISEASES:

- BECAUSE YOU RUB YOUR EYES WITH DIRTY HANDS (AFTER WORKING WHERE THERE IS EARTH OR DUST, WHEN YOU HAVE A RUNNY NOSE, WHEN YOU HAVE TOUCHED A WOUND OR A DISEASED SKIN )

- BECAUSE YOU DO NOT PROTECT YOUR EYES WHEN YOU ARE WORKING IN DANGEROUS CONDITIONS (WHEN YOU ARE CUTTING WOOD, WHEN YOU ARE BREAKING STONES, WHEN YOU ARE HARVESTING ...),

- BECAUSE YOU ARE NOT EATING WELL.

---

EYE DISEASES

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. indicate to the village people about how to protect themselves against eye diseases
2. give treatment to a child or adult whose eyes are running
3. put ointment in the eyes of a baby a few days old who has runny eyes
4. treat the baby's father and mother with penicillin injection
5. give treatment to a child or adult who has one or both eyes running
6. send to the hospital or health centre any patient who:
  - can no longer see out of one or both eyes
  - has pain in one or both eyes
  - who has got something in his eye
  - who has one or both eyes which go on running even after treatment.

EYE DISEASES

IF YOU WANT TO PROTECT THE PEOPLE LIVING IN YOUR  
VILLAGE AGAINST EYE DISEASES, ADVISE:

- everyone to wash their face and hands with soap and water after working, when they have a runny nose, when they have touched a wound or a diseased skin, and to come and see you when they have an eye disease,
- the people who help to deliver babies to clean the eyes of a newborn baby carefully,
- the mothers to feed their children well and tell them that carrots are a good food to eat for the eyes,
- the teachers to show the schoolchildren how to wash their face and hands with soap and water and to send any child who cannot see properly to the doctor.

WHEN YOU SEE SOMEONE WITH AN EYE DISEASE, CARRY OUT THE  
FOLLOWING INSTRUCTIONS:

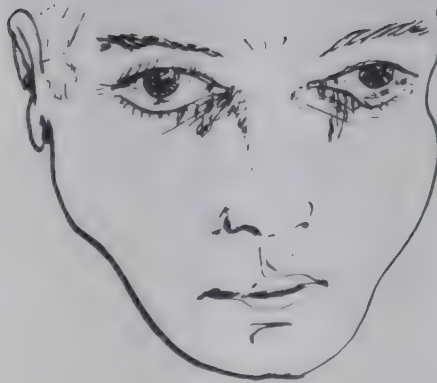
IF, ON WAKING UP

THE EYELIDS ARE STUCK TOGETHER BY SECRETIONS AND DIRT  
YOU SHOULD CLEAN THE EYELIDS WITH A DAMP CLOTH  
THEN OPEN THEM TO ENABLE THE EYE TO SEE



**PUS RUNS FROM BABY'S EYES  
HE IS SICK ....MOTHER AND FATHER TOO**

(but they may not know it!)



the eyes are red and runny

EYE DISEASES

1. IF THE PATIENT CAN NO LONGER SEE PROPERLY WITH ONE EYE  
(OR WITH BOTH EYES):

This may be serious.

Send the patient to the hospital or the health centre.

2. IF ONE OF THE PATIENT'S EYES HURTS

This may be, for example, some dust, a splinter, a small fly, a little piece of straw ...

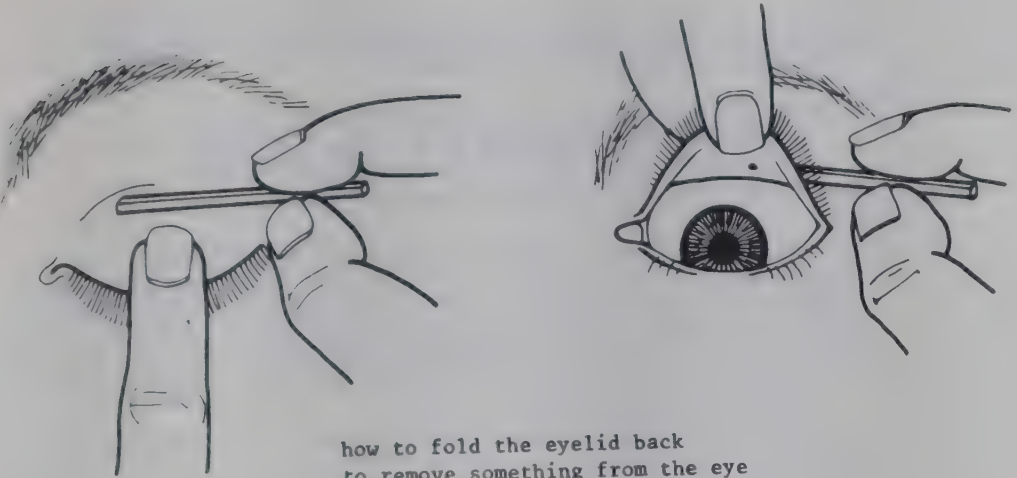
The patient complains that one of his eyes hurts and that this eye is red and runny.

Wash your hands well with soap and water and look underneath the eyelids of the eye which hurts (see drawing)

- If you see a little dust, a small fly or something else on the eyelid, take the corner of a clean piece of cloth and rub very gently to remove it
- Rinse the eye with clean water
- Then put on some AUREOMYCIN ointment and ask the patient to come back and see you on the following day (see page 237)
- if the patient's eye is no longer hurting, put on some more AUREOMYCIN ointment and tell the patient to come back and see you if his eye starts hurting again
- if the patient's eye is still hurting, send him to the hospital or the health centre

If you cannot see anything underneath the eyelids, send the patient to the hospital or the health centre.

Hold the edge of the eyelid  
between the thumb and the index  
Gently pull it down a little  
Fold the eyelid back onto a  
match held in the other hand



put on a little  
aureomycin ointment  
(as much as a drop of water)



EYE DISEASES

3. IF ONE OR BOTH EYES ARE RUNNY, BUT THE PATIENT SEES  
WELL AND HIS EYES DO NOT HURT

Either, the patient is a baby a few days old  
or, the patient is a child or an adult.

3.1 If the patient is a baby a few days old

A large amount of pus is running out of one or both eyes  
BE CAREFUL: This is a disease which the baby caught while he was  
being born because his mother and father are ill. You should  
therefore treat both the baby and his parents.

For the baby, put a little AUREOMYCIN eye ointment in each eye 3 times  
a day for 5 days, having first cleaned the eyelids with a damp  
cloth, or ask the parents to do so

If you have no eye ointment, send the baby to the hospital or the  
health centre immediately

For the father and mother, you should give them both an injection of  
4,000,000 units of PENICILLIN in the buttocks, and give them the  
same injection again the following day

If you have no Penicillin, send them both to the hospital or the  
health centre

See both the baby and his parents again after 4 or 5 days

Either everything is all right: they are cured

Or they are no better, in which case send them to the hospital or the  
health centre.

3.2 If the patient is a child or an adult

A discharge like water or milk is running out of one or both eyes  
Tell the patient to put warm damp compresses on the eyelid(s) and  
Tell him to put some AUREOMYCIN eye ointment in both eyes every  
morning and night for 5 days

and tell him to wash his hands well several times a day with soap  
and water.

The eye(s) are no longer runny: the patient is cured

The eye(s) are still runny: send the patient to the hospital or the  
health centre.

---

Problem 8.3  
HEADACHES

# HEADACHES

---

YOU MAY HAVE A HEADACHE FOR MANY REASONS.

WHEN IT IS NOT SERIOUS, THE HEADACHE GOES AWAY BY ITSELF OR WITH THE HELP OF ASPIRIN.

WHEN IT IS SERIOUS, YOU SHOULD SEND THE PATIENT TO THE HOSPITAL OR THE HEALTH CENTRE.

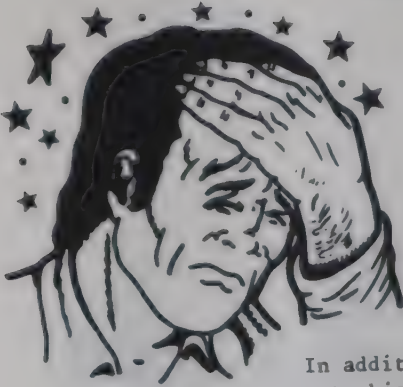
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## HEADACHES

### LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. treat a patient with headaches but no other signs of illness
2. examine a patient with a headache
3. demonstrate how you will know if a patient has a stiff neck
4. list four things about the behaviour of a patient which tell you that he is behaving in a strange way
5. decide when to send a patient to the hospital or health centre.

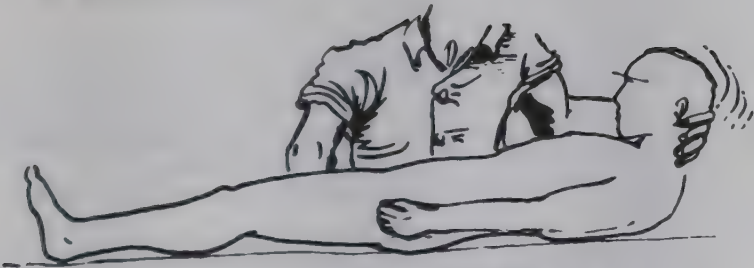


In addition  
to his headache



does the patient  
behave in a  
strange way?

is his neck stiff?



**NO**



**YES**

to find out, make the patient  
lie down flat, put your hand  
underneath his neck, and try to lift his head

## HEADACHES

EITHER:

1. THE HEADACHES ARE NOT SERIOUS:

- they go away by themselves
- they go away with the help of some aspirin:
  - give children:  $\frac{1}{2}$  a tablet morning, noon and night
  - give adults: 1 or 2 tablets morning, noon and night for 1 or 2 days

OR:

2. THE HEADACHES ARE MORE SERIOUS:

- they do not go away with the help of aspirin

IN ADDITION TO HIS HEADACHE,

2.1 The patient is feverish. See Problem 1.2

2.2 The patient's neck is stiff

The neck is stiff when a patient, who is either standing or lying down with his legs stretched out, cannot touch his chest with his chin by himself, or if it is difficult for you to move his head to do the same thing (see drawing)

Send the patient to the hospital or the health centre.

2.3 The patient is behaving in a strange or odd way

The patient seems very lost and does not know where he is, or he does not answer when you ask him questions, or he tells stories which are not true,

or he talks or walks like someone who has drunk too much alcohol,

Send the patient to the hospital or the health centre

2.4 The patient has swollen legs and feet

Send him to the hospital or the health centre.

---

# BELLY PAINS

---

TO HAVE BELLY PAINS IS TO HAVE PAINS EITHER ALL OVER  
THE BELLY OR IN ONLY PART OF IT.

---



BELLY PAINS

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. list three conditions which cause pain in the belly
2. give medicine to patient with sudden and severe pain in the belly
3. give medicine to a patient with recurrent pains in the belly
4. give advice to patient with pains in the belly
5. give treatment to patient with pains in the lower belly
6. give treatment to patient with fever and pain in the belly
7. send to the hospital or health centre any patient:
  - who still has pain in the belly after treatment
  - who has severe pain with vomiting.



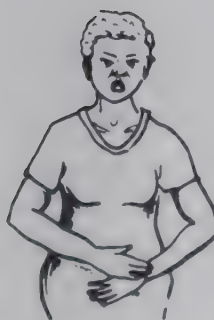
Very bad pain  
in the belly



has he vomited?  
has he got diarrhoea?  
has he got worms?



pain in the  
lower belly  
when urinating?



if a woman,  
has she got her period?

BELLY PAINS

B E L L Y   P A I N S

*When a patient comes to see you because of belly pains, you should ask him if the pain is very bad or not:*

1. IS THE PAIN VERY BAD?

The pain came on in a few minutes or in a few hours, the patient has very bad belly pains and has difficulty in walking.

1.1 It is the first time that the patient has felt this particular pain.

Give the patient an injection of ATROPINE or give him some drops of BELLADONNA, see technique page 237.

Tell the patient not to eat or drink anything and send him to the hospital or the health centre immediately.

1.2 It is not the first time that the patient has felt this particular pain

Give the patient an injection of ATROPINE or give him some drops of BELLADONNA, see technique page 237, and make him lie down for two hours

See the patient again after 2 hours:

If the pain goes, let the patient go home and tell him to come back if the pain starts again. If the pain starts again, send the patient to the hospital or the health centre.

If the pain continues, send the patient to the hospital or the health centre.

2. IS THE PAIN NOT VERY BAD?

2.1 The patient has diarrhoea:

See "Diarrhoea" page 16.

2.2 The patient has worms in his stools:

See "Intestinal worms" page 180.

2.3 The patient has not got diarrhoea or worms in his stools

2.3.1 The patient has mild pains in the belly after he has eaten

Tell the patient to eat slowly and not to work immediately after eating

Ask the patient not to eat fatty foods (fried food, cakes, pork meat)

Give him some drops of BELLADONNA, see technique page 237.

See the patient again after 2 weeks:

If he is better, tell the patient to stop taking the drops of BELLADONNA but to continue to eat slowly and to avoid fatty foods

If he is no better, send him to the hospital or the health centre.

BELLY PAINS

2.3.2 The patient has pains in the lower belly or when he urinates

Take his temperature,

a) the patient is not feverish

Give the patient some aspirin, see page 237

And tell the patient to drink plenty of liquid

See the patient again after 3 days:

If he is all right, the patient is cured. Advise him to drink more liquid than usual

If he is no better, send him to the hospital or the health centre.

b) the patient is feverish

Give the patient some SULFADIAZINE tablets, see page 239.

See the patient again after 5 days:

If he is all right, the patient is cured. Advise him to drink more liquid than usual

If he is no better, send him to the hospital or the health centre.

3. THE PATIENT IS A WOMAN WHO HAS PAINS IN THE BELLY  
EVERY TIME SHE HAS HER PERIOD

See Problem 2.5 "Diseases of women" page 74.

Problem 6.5  
PAINS IN THE JOINTS

# PAINS IN THE JOINTS

---

PAINS IN THE JOINTS ARE COMMON.

WHEN THESE PAINS START AFTER AN ACCIDENT OR A FALL OR AFTER AN INFECTION, THEY SHOULD BE TREATED IMMEDIATELY SO THAT THE PATIENT CAN GO BACK TO HIS NORMAL OCCUPATIONS.

WHEN THESE PAINS OCCUR IN OLD PEOPLE WHO HAVE NOT HAD AN ACCIDENT AND WHO DO NOT HAVE AN INFECTION, THE PAIN SHOULD BE TREATED BUT YOU SHOULD ALSO KNOW THAT THESE PAINS WILL COME BACK: THIS IS A DISEASE OF OLD AGE. IN THOSE CASES, ASPIRIN IS THE BEST MEDICINE.

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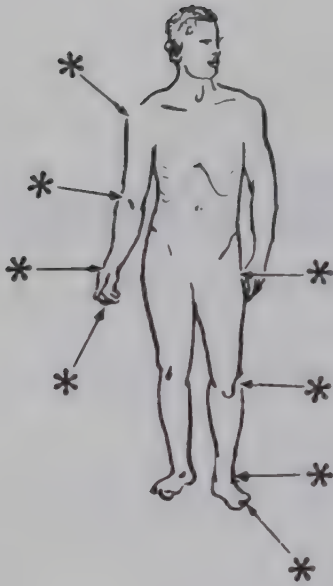
PAINS IN THE JOINTS

LEARNING OBJECTIVES

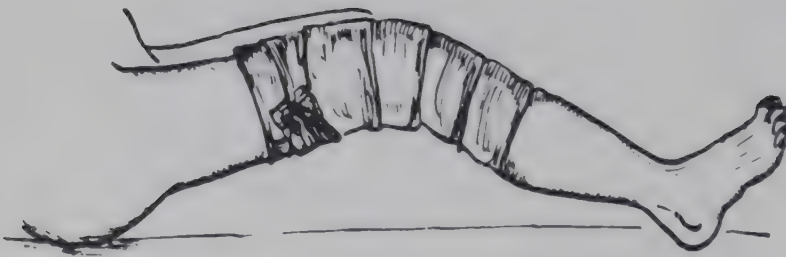
At the end of his training, the PHW should be able to:

1. tell whether pain in a joint is due to a fracture or to a wound
2. put a tight bandage round a painful joint
3. explain to a patient how he should rest after pain caused by an accident
4. list three signs of infection in a joint
5. decide whether or not there is heat in a joint
6. decide whether or not a joint has changed shape
7. treat a patient who is feverish and has pain in a joint
8. decide when a patient with a painful joint should be sent to the hospital or health centre.





\*THERE IS A JOINT HERE



tight bandage  
round the knee  
or the ankle



PAINS IN THE JOINTS

IF A PATIENT HAS A PAIN IN ONE (OR MORE) JOINTS, ASK HIM  
IF THEY STARTED AFTER AN ACCIDENT OR A FALL?

1. If so, has he also got:
  - a fracture
  - a wound
  - neither a fracture nor a wound.
2. If not, has he also got, in addition to pains in the joints:
  - signs of infection
  - no signs of infection.

1. DID THEY START AFTER AN ACCIDENT OR A FALL? YES

1.1 There is a fracture  
See Problem 4.3 "Fractures"

1.2 There is a wound  
See Problem 4.2 "Wounds"

1.3 There is neither a wound nor a fracture

1.3.1 Put a tight (but not too tight)<sup>1</sup> bandage around the joint  
(see drawing)

1.3.2 Ask the patient to rest at home for a week

1.3.3 Give aspirin tablets for 3 days:

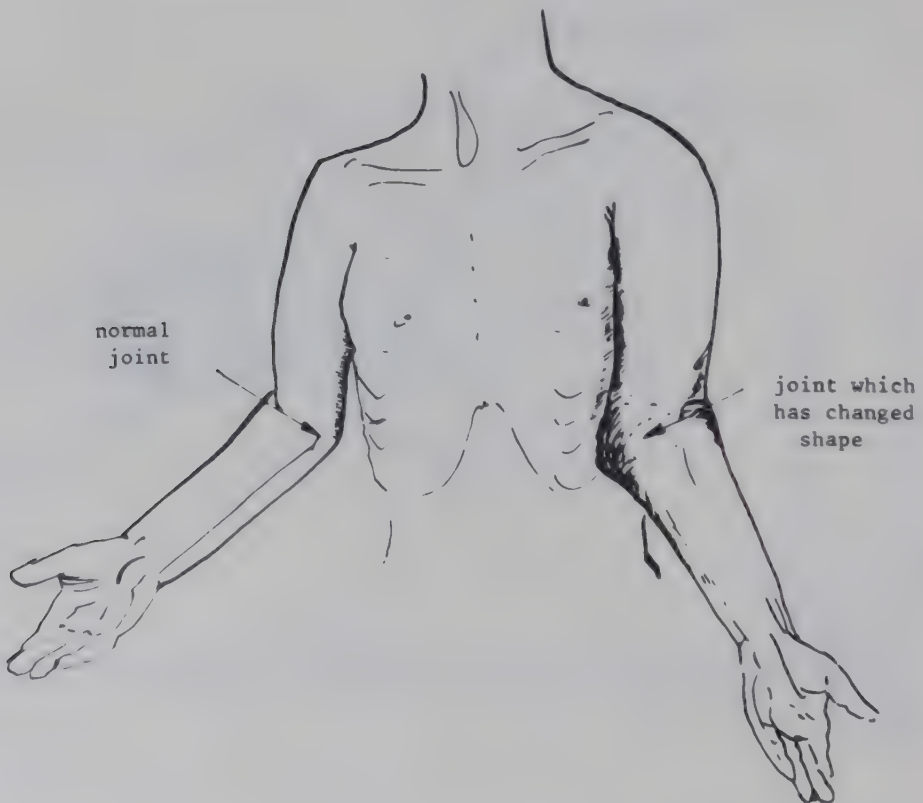
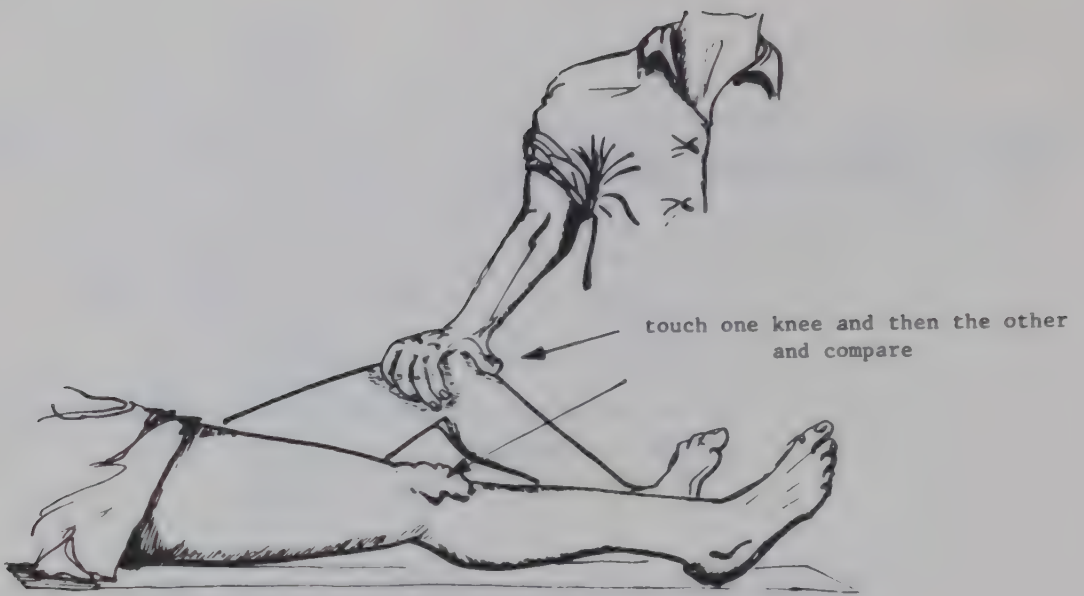
children:  $\frac{1}{2}$  tablet morning, noon and night  
adults: 1 tablet morning, noon and night

1.3.4 See the patient again after one week:

- he is all right: the patient is cured
- he is not all right: send the patient to the hospital or the health centre

---

<sup>1</sup> A bandage is too tight if it causes pain or swelling below the joint, in the fingers or the toes.



PAINS IN THE JOINTS

2. THEY DID NOT START AFTER AN ACCIDENT OR A FALL

Look for the 3 signs of infection in a joint:

1. The patient is feverish
2. The joint is hot. To find out, put your hand down flat on the joint which hurts and then on the same joint but on the other side (see drawing)
3. The joint which hurts does not have the same shape as the one on the other side: it is bigger, thinner, stiffer ...

2.1 There is at least one of the three signs

2.1.1 Give an injection of PENICILLIN in the buttocks every day for 5 days:

See page 238

If you have no Penicillin, give SULFADIAZINE tablets, see page 239

2.1.2 Give ASPIRIN tablets, see page 237

2.1.3 See the patient again after 5 days of treatment:

- it is gone: the patient is cured
- it is better: continue with the aspirin for 5 days
- it is no better: send the patient to the hospital or the health centre.

2.2 There is none of the three signs

Give ASPIRIN tablets, see page 237

See the patient again after 4 days:

- everything is all right: the patient is cured
  - everything is not all right: send the patient to the hospital or the health centre.
-

Problem 6.6  
INTESTINAL WORMS

# INTESTINAL WORMS

---

YOU MAY FIND WORMS IN FOOD IN ALL COUNTRIES. THE WORMS WILL THEN GO AND LIVE IN THE PATIENT'S INTESTINE. THEY WILL MAKE THE PATIENT TIRED AND WILL EAT PART OF HIS FOOD.

THEN THE WORMS WILL LAY EGGS WHICH WILL COME OUT OF THE BODY IN THE STOOLS.

WHEN A PATIENT HAS INTESTINAL WORMS AND HE DEPOSITS HIS STOOLS ON THE GROUND - AND NOT IN A LATRINE - THE WORMS' EGGS WILL SPREAD EVERYWHERE AND WILL GET INTO THE WATER WHICH WE DRINK OR INTO THE FOOD WHICH WE EAT. THIS IS HOW WORMS PASS FROM ONE PATIENT TO ANOTHER.

YOU SHOULD THEREFORE FIGHT AGAINST THESE WORMS, AND TO DO THIS YOU WILL CARRY OUT THE FOLLOWING INSTRUCTIONS.

---

INTESTINAL WORMS

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. indicate three points to village people about how to protect the people from getting worms
2. recognize the three main types of intestinal worms
3. treat a patient who is passing or vomiting round or flat worms
4. treat a patient who complains of itching round the anus in the evening
5. treat the other members of the patient's family if necessary
6. send to the hospital or health centre any child who:
  - vomits and passes worms
  - has severe pain in the belly accompanied by vomiting.



INTESTINAL WORMS

YOU CATCH INTESTINAL WORMS

- because you eat with dirty hands (you have not washed them after going to the toilet, after working or playing on the ground)
- because you eat fruit which has fallen on the ground where there are eggs from intestinal worms without washing that fruit first
- because you eat beef or pork which is raw or not very well cooked and contains intestinal worms
- because you drink dirty water.

IF YOU WANT TO PROTECT THE PEOPLE IN YOUR VILLAGE  
AGAINST INTESTINAL WORMS, TELL THEM AND SHOW THEM  
HOW:

- TO BUILD AND USE CLEAN LATRINES
- TO EAT IN A CLEAN WAY (CLEAN HANDS, CLEAN FOOD,  
WELL-COOKED MEAT)
- TO DRINK IN A CLEAN WAY.

WHEN A PATIENT COMES TO SEE YOU BECAUSE OF INTESTINAL WORMS,  
REMIND HIM OF THE ADVICE GIVEN ABOVE AND carry out THE FOLLOWING  
INSTRUCTIONS FOR TREATMENT:



round worm



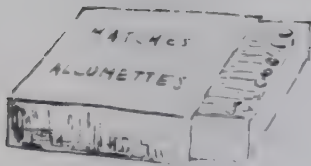
very small worm



flat worm



a few rings of the  
flat worm which fall  
in the underpants



the matchbox  
helps to compare  
their size

## INTESTINAL WORMS

Intestinal worms can be seen in the stools. When a patient tells you that he has worms in his stools, these worms may be either round like a pencil, or white like a ribbon, or very small like a thread.

### 1. IF IT IS ROUND LIKE A PENCIL

#### 1.1 Either the patient is a child under 6 years old

##### 1.1.1 The child has no complaints or sometimes has a little pain in the belly

Give this child some PIPERAZINE, see technique page 239

Ask the parents if there are other people in the family who have worms, and if so, treat them also

Do not forget to advise the family:

1. to use clean latrines
2. to wash their hands well before they eat and after they have been to the toilet
3. to drink clean water and to eat food which has fallen on the ground only after washing it

##### 1.1.2 The child often vomits and has bad pains in the belly

Send him to the hospital or the health centre

If other children have got worms, do not forget to treat them as well and to give the family the advice on cleanliness of 1.1.1.

#### 1.2 Or the patient is someone over 6 years old

Give this patient some PIPERAZINE but see technique page 239

Ask him if there are other children who have worms and if so, treat them.

Do not forget to repeat the advice on cleanliness of 1.1.1.

### 2. IF IT IS WHITE LIKE A RIBBON

Give the patient some MEPACRINE tablets, see page 238

Ask the family if there are other people who have got worms, and if so, treat them

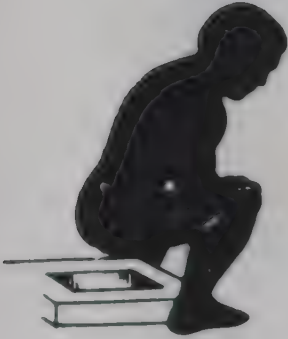
Do not forget to repeat the advice on cleanliness. Insist on the need to cook beef and pork well before eating it.

### 3. IF IT IS VERY SMALL LIKE A THREAD

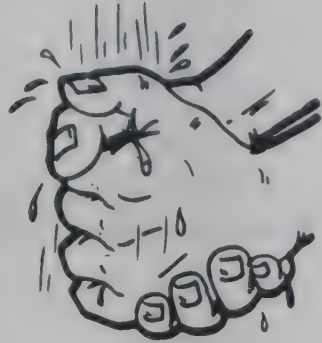
It itches every night around the anus

Give the patient PIPERAZINE tablets, see technique page 239.

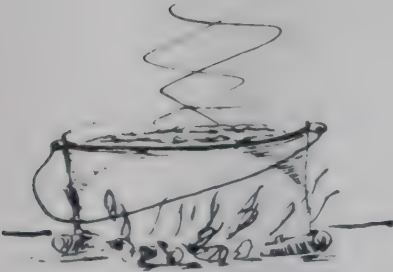
TO AVOID CATCHING WORMS  
you should:



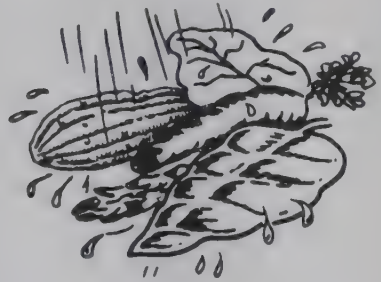
defecate in a latrine



wash your hands  
before eating and after defecating



boil the water which  
you are going to drink



wash vegetables



cook food well

INTESTINAL WORMS

B E C A R E F U L :

WHEN SOMEONE HAS INTESTINAL WORMS, YOU SHOULD SEE IF THE MEMBERS OF HIS FAMILY ALSO HAVE WORMS. IF THEY DO, YOU SHOULD TREAT THEM IN THE SAME WAY.

DO NOT FORGET THAT IT IS A GOOD THING TO TREAT PEOPLE WHO HAVE WORMS, BUT THAT IT IS EVEN BETTER TO PREVENT THEM FROM GETTING THEM.

---

Problem 6.7  
WEAKNESS AND TIREDNESS

# WEAKNESS AND TIREDNESS

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YOU MAY FEEL WEAK AND TIRED FOR 3 REASONS:

1. YOU ARE LOSING BLOOD
2. YOU ARE NOT EATING ENOUGH GOOD FOODS
3. SOMETHING IN THE BODY IS NOT HEALTHY.

BUT OFTEN IT IS BECAUSE YOU ARE NOT EATING ENOUGH GOOD  
FOODS.

---



WEAKNESS AND TIREDNESS

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. talk with the people about how to keep well and prevent weakness and tiredness
2. recognize a person who is always weak and tired
3. recognize the signs of sudden weakness
4. decide whether or not the ankles are swollen
5. recognize when the inside of the eye is yellow, red, pink or pale (white)
6. recognize danger signs of bleeding in pregnant women
7. decide whether a woman is bleeding too much during her monthly period
8. decide when someone who feels tired and weak should be sent to the hospital or health centre.

WEAKNESS AND TIREDNESS

WEAKNESS AND TIREDNESS

1. *Either the patient has felt tired and weak for some time*
2. *Or the patient became weak all of a sudden.*

1. THE PATIENT HAS FELT WEAK AND TIRED FOR SOME TIME

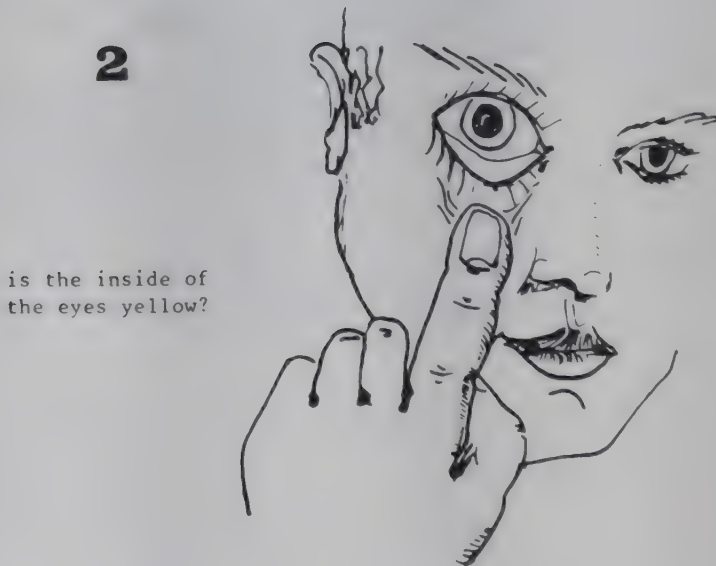
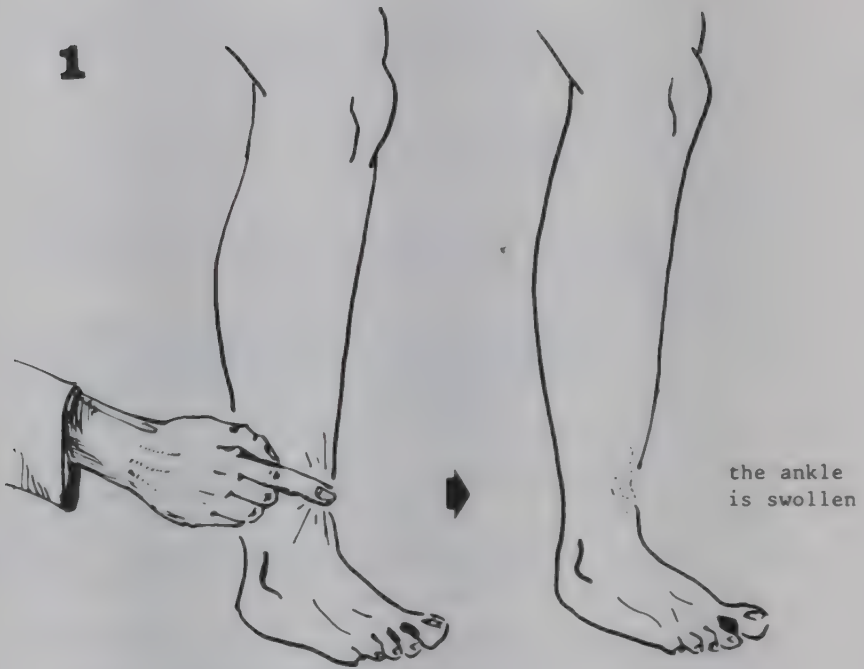
1.1 If the patient is a man or a child

1.1.1 If there is one of the two following signs, send the patient to the hospital or the health centre

1. the ankles are swollen: to find out:
  - press with your finger on the ankle or the foot for 2 to 3 seconds
  - take your finger off and look to see if your finger has left a small dent at that spot ( see drawing No. 1). If so, the ankle is swollen.
2. the inside of the eyes is yellow, to find out:
  - pull down the lower eyelid and look inside the eye (see drawing No. 2)Normally, the inside of the eye is pink.

1.1.2 If there is neither of the two signs (see 1.1.1) then take the patient's temperature:

1. Either he is feverish, see Problem 1.2 "Feverishness"
2. Or he is not feverish, but:
  - 2.1 The inside of the eyes is pale:
    - give him some IRON SULFATE (see technique page 239)
    - tell the patient to rest and to eat well, if possible meat, vegetables, eggs, fruit
    - send him to the hospital or the health centre
  - 2.2 The inside of the eyes is not pale:
    - tell the patient to rest and to eat well, if possible meat, vegetables, eggs, fruit
    - send him to the hospital of the health centre if he is not better after 2 weeks.



DID THE PATIENT BECOME WEAK ALL OF A SUDDEN?

is the inside of  
the eyes pale?

can he still  
answer your  
question?

are his fingers  
colder than they  
usually are?



SEND HIM QUICKLY TO THE HOSPITAL OR THE HEALTH CENTRE

WEAKNESS AND TIREDNESS

1.2 If the patient is a woman

1.2.1 The woman is pregnant or has just had a baby, see  
Problems "Pregnancy" or "After the delivery"

1.2.2 The woman is not pregnant

1. She is losing blood through the vagina when she does  
not have her period or she loses too much blood  
during her period

Send her to the hospital or the health centre

2. She is not losing any blood through her vagina  
Then see 1.1 as for the man and the child.

2. THE PATIENT BECAME WEAK ALL OF A SUDDEN

In that case, send him to the hospital or the health centre immediately.

To find out:

2.1 Ask the patient or his family what happened: did the patient  
lose a lot of blood or did he feel as if he had been hit over  
the head

2.2 Look for the signs of great weakness, that is to say:

2.2.1 The inside of the eyes is pale or yellow

2.2.2 The fingers feel colder than usual

2.2.3 The patient no longer answers your questions.

BE CAREFUL :

TO AVOID WEAKNESS AND TIREDNESS, YOU SHOULD EAT GOOD FOODS:

1. EAT FOOD WHICH CONTAINS IRON: VEGETABLES WITH GREEN  
LEAVES, FISH, MEAT, EGGS

2. PREPARE YOUR FOOD IN A CLEAN WAY (SEE PROBLEM No 5.4).

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Problem 6.8

DISEASES OF THE MOUTH AND TEETH

# **DISEASES OF THE MOUTH AND TEETH**

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TO HAVE A DISEASE OF THE MOUTH OR TEETH IS TO HAVE EITHER A PAIN IN A TOOTH OR AROUND A TOOTH, OR TO HAVE A PAIN WHEN YOU SWALLOW OR TO HAVE A PAIN IN THE JAW AFTER AN ACCIDENT.

SINCE YOU HAVE TO EAT TO LIVE, AND SINCE TO EAT YOU NEED TEETH WHICH CUT FOOD INTO SMALL PIECES, YOU SHOULD TEACH THE PEOPLE TO LOOK AFTER THEIR TEETH TO STAY IN GOOD HEALTH.

---



DISEASES OF THE MOUTH AND TEETH

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. test whether or not a patient can open his mouth
2. take action immediately to send to hospital a patient who cannot open his mouth
3. determine whether a tooth hurts when it is tapped
4. treat a patient who is feverish and has a tooth that hurts when it is tapped
5. show a patient how to use a mouthwash and how to prepare salt water
6. treat a patient whose mouth hurts every time he swallows something:
  - when the patient is feverish
  - when the patient is not feverish
7. indicate to village people how to keep the mouth and teeth healthy and avoid toothache.

## DISEASES OF THE MOUTH AND TEETH

### YOUR MOUTH AND TEETH HURT

- because you do not clean your mouth and teeth after you have eaten. Therefore little bits of food stay between the teeth and destroy the teeth
- because you eat food which is too sugary, such as sweets and cakes, and they too destroy the teeth, especially when you eat them between meals
- because you eat badly (meals at irregular times and not enough to eat)

TO AVOID DISEASES OF THE MOUTH AND TEETH IN YOUR COMMUNITY, TELL, AND SHOW, THE PEOPLE HOW THEY SHOULD LOOK AFTER THEIR TEETH BY DOING THE FOLLOWING 3 THINGS:

1. CLEANING THE MOUTH AND TEETH AFTER MEALS

either, rinse the mouth with a little water after meals  
or, brush the teeth after meals with a toothbrush dipped in water

2. NOT TO GIVE THE CHILDREN TOO MANY SWEETS AND CAKES, ESPECIALLY IN BETWEEN MEALS

3. TO EAT FOOD WHICH PROTECTS THE HEALTH OF THE TEETH

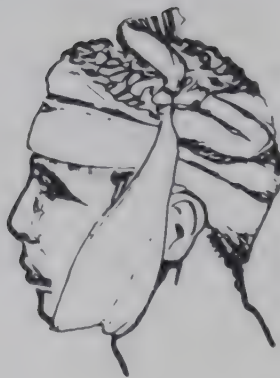
for example, fresh fruit and vegetables, coconut, taro, sweet potato.

WHEN YOU SEE A CASE OF DISEASE OF THE MOUTH OR TEETH, REPEAT THE ADVICE GIVEN ABOVE TO THE PATIENT AND HIS FAMILY:

and carry out the FOLLOWING INSTRUCTIONS FOR TREATMENT:



Does the tooth hurt  
when you tap it?



bandage to secure  
the jaw

DISEASES OF THE MOUTH AND TEETH

*When you examine a patient who has a disease of the mouth or teeth, look immediately to see if the patient can open his mouth or not.*

1. WHEN THE PATIENT CAN NO LONGER OPEN HIS MOUTH, AND HAS NOT RECEIVED A BLOW ON THE JAW

BE CAREFUL: The situation is serious: the patient will die if he is not treated immediately by a doctor  
Therefore send the patient to the hospital or the health centre immediately.

2. WHEN THE PATIENT CAN OPEN HIS MOUTH

2.1 The patient has a pain in a tooth

2.1.1 The patient has a pain in a tooth when he eats something hot or cold

Send this patient whenever possible to a dentist who will treat the tooth

2.1.2 The tooth hurts when you tap it with a spoon (see drawing)  
Take the patient's temperature

a) If the patient is feverish, give him an injection of PENICILLIN, or, if you have none, give him SULFADIAZINE tablets, see techniques pages 238 and 239.

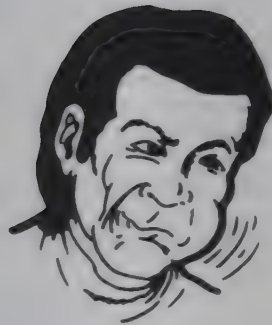
Do not forget to tell the patient to drink plenty of water and to rinse his mouth with salty water (1 teaspoonful in a cup of warm water). He should keep the salty water in his mouth for 2 - 3 minutes and then spit it out (and not swallow the salty water)

See the patient again after 3 days:

- if he is better, advise the patient to go, if possible, to the dentist to have the tooth treated or taken out

- if he is no better, send the patient to the hospital or the health centre

b) If the patient is not feverish, advise him to go, if possible, to the dentist to have the tooth treated or taken out



#### MOUTHWASH

Fill the mouth with salty water.  
Do not swallow it but move it around  
the mouth 5 or 6 times. Then spit  
it out. Do this again several  
times.



brush for cleaning teeth

DISEASES OF THE MOUTH AND TEETH

- 2.2 Something hurts around the teeth. The gum is swollen and there are little sores

Take the patient's temperature

- 2.2.1 The patient is feverish

Give the patient some PENICILLIN or SULFADIAZINE. see technique page 238, and tell the patient to rinse his mouth with salty water, see 2.1.2.a

See the patient again after 3 days and tap each tooth with a spoon

If there is no tooth which hurts, advise the patient to do the 3 things advised on page 195

If there is a tooth which hurts when you tap it with a spoon, see 2.1.2

- 2.2.2 The patient is not feverish

Mouthwash 4 times a day for 1 week, see technique page 198.

- 2.3 Something hurts in the mouth

There is a swelling or small sores in the mouth, but not around the teeth

Send the patient to the hospital or the health centre.

- 2.4 Something hurts only when the patient swallows something

Take the patient's temperature

- 2.4.1 The patient is feverish

Give the patient some PENICILLIN or SULFADIAZINE. see technique pages 238/239

See the patient again after 3 days:

- if he is all right, the patient is cured, but ask him to come back and see you if he feels tired or if he has swollen feet
- if he is no better, send the patient to the hospital or the health centre

- 2.4.2 The patient is not feverish

Give him some ASPIRIN for 3 days (see page 237) and tell the patient to rinse his mouth with warm salty water 4 times a day

See the patient again on the 4th day:

- he is all right, the patient is cured
- he is no better: send the patient to the hospital or the health centre

- 2.5 The patient has received a strong blow on the jaw and it hurts a lot when he tries to open his mouth

Put on a bandage to secure the jaw (see drawing) and send the patient to the hospital or the health centre.



Problem 6.9  
LUMPS UNDER THE SKIN

# LUMPS<sup>\*</sup>

## UNDER THE

## SKIN

---

ONE OR SEVERAL LUMPS MAY APPEAR IN ANY PART OF THE BODY.

THE ONES THAT ARE MOST DANGEROUS ARE THE ONES YOU CAN FEEL :

- AROUND THE NECK
- IN THE CREASE OF THE SHOULDER
- IN THE CREASE OF THE THIGH

AND ESPECIALLY

IF THE PATIENT HAS LOST WEIGHT AND FEELS TIRED.

---

\* Small lump or small swelling which may or may not be hard and which you can feel under the skin

LUMPS UNDER THE SKIN

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. name three places of the body where lumps under the skin are most dangerous
2. indicate to village people how to prevent getting swellings and lumps on the skin
3. examine the lump or lumps, and determine:
  - how long the lump or lumps have been there
  - whether or not the patient is feverish
  - whether or not the lump is painful
  - whether or not the lump or lumps appeared after an accident
4. show the patient how to make and put on hot compresses
5. treat a patient who is feverish and has one or more lumps under his skin
6. list four signs which indicate that the patient must be sent to hospital.

LUMPS UNDER THE SKIN

SOME LUMPS MAY APPEAR UNDER THE SKIN

- because you do not wash your whole body regularly with soap and water to get rid of the dust and the sweat, and the skin is dirty
- because you do not wash regularly the clothes that you wear
- because you have not properly treated a wound or a skin disease
- because you do not eat well
- because you have been bitten by a bad fly.

TO REDUCE THESE DISEASES IN YOUR VILLAGE,

ADVISE THE PEOPLE:

- TO KEEP THEIR BODY CLEAN
- TO WEAR CLEAN CLOTHES
- TO COME AND SEE YOU ABOUT ANY WOUND OR ANY SKIN DISEASE
- TO EAT WELL.

WHEN SOMEONE COMES TO SEE YOU BECAUSE HE HAS  
NOTICES THAT HE HAS ONE OR SEVERAL LUMPS UNDER  
THE SKIN

remind him about the advice on cleanliness and carry out  
the FOLLOWING INSTRUCTIONS FOR TREATMENT:

LUMPS UNDER THE SKIN

*When a patient comes to see you because he has noticed that he has one or several lumps under the skin, ask him since when he has these lumps:*

1. THE LUMP(S) HAVE BEEN THERE FOR LESS THAN TWO WEEKS

Take the patient's temperature

1.1 The patient is feverish

1.1.1 The lump hurts

Give the patient some PENICILLIN, or, if you have none, give him some SULFADIAZINE tablets, see technique page 239. Also tell the patient to put hot compresses on the lump which hurts (see drawing page 204) and give him some ASPIRIN.

See the patient again on the 4th day:

- Either he is better. Tell him to continue with the hot compresses until the lump goes away
- Or, the lump has opened and there is pus coming out, see "Wounds"
- Or, the patient is still feverish and the lump hurts a lot.  
In that case, send the patient to the hospital or the health centre.

1.1.2 The lump does not hurt

Tell the patient to put hot compresses on the lump (see drawing page 204) and give him some ASPIRIN

See the patient again on the 4th day:

- If the patient is no longer feverish, tell him to continue with the hot compresses until the lump goes away
- If the patient is still feverish, send him to the hospital or the health centre.

2. THE LUMP(S) HAVE BEEN THERE FOR MORE THAN TWO WEEKS

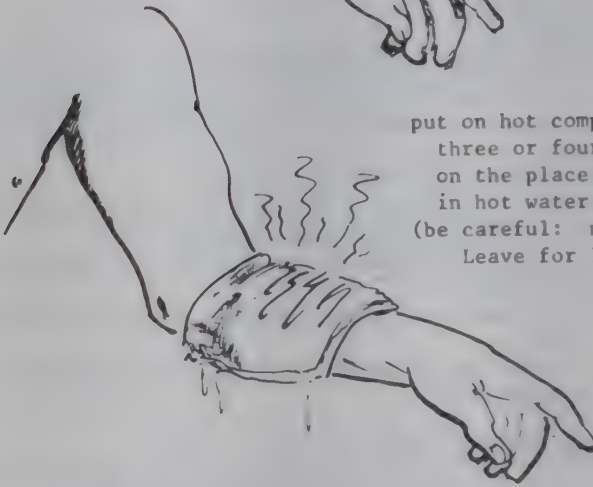
2.1 The patient complains of nothing

The lump(s) have been there for several months or several years, but they do not bother the patient in his life and his work. This is not serious: comfort the patient, but tell him to come back if he notices something which bothers him in his life or his work.

In that case, you should send the patient to the hospital or the health centre.



the lump is recent  
it hurts  
the patient may be a little feverish  
(he has an abcess)



put on hot compresses 5 or 6 times a day:  
three or four layers of cloth are put  
on the place which hurts and soaked  
in hot water.  
(be careful: not burning hot!)  
Leave for 10 minutes.

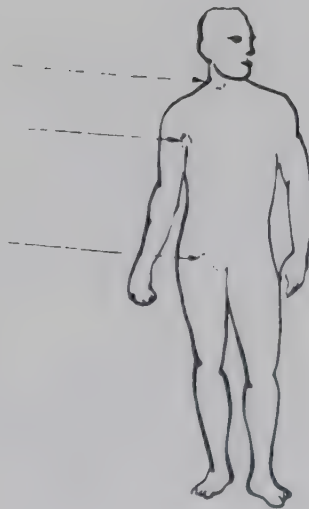


When the lump opens, a very  
dirty liquid comes out: pus



does he complain  
of something else?

some lumps  
may be dangerous



Send the patient to the hospital  
or the health centre



## LUMPS UNDER THE SKIN

### 2.2 The patient complains of something else

Sometimes, the lump bothers the patient: he cannot see properly, he cannot hear properly, he has difficulty in swallowing or in breathing, he cannot go to the toilet, or work, or walk ... Sometimes, he feels tired, he no longer eats as he used to, he has lost weight, he has a cough, he has diarrhoea or he is constipated.

In all these cases, send the patient to the hospital or the health centre.

Remember that the most dangerous lumps are the ones you can feel:

- around the neck (in front, at the side, or at the back)
- in the crease of the shoulder
- in the crease of the thigh (see drawing).

---

Problem 8.10  
MENTAL DISEASES

# MENTAL DISEASES

---

TO BE IN GOOD HEALTH IS TO BE HEALTHY IN YOUR BODY AND IN YOUR MIND.

YOU ARE HEALTHY IN YOUR MIND, WHEN YOU LEARN EASILY, YOU ARE HAPPY TO BE ALIVE, YOU LIKE LIVING WITH OTHER PEOPLE, YOU SOLVE YOUR PROBLEMS AND YOU HELP OTHER PEOPLE TO SOLVE THEIR PROBLEMS.

MENTAL DISEASES ARE THE DISEASES WHICH AFFECT PEOPLE IN THEIR MINDS.

SOME PATIENTS FEEL SAD, UNHAPPY, ALWAYS TIRED AND COMPLAIN OF HAVING PAINS IN THEIR BODIES.

OTHERS STOP THINKING, NEVER DO ANYTHING, DO NOT FEEL LIKE OTHER PEOPLE ANY MORE.

OTHERS OFTEN HAVE CONVULSIONS.

SOME CHILDREN WALK AND TALK MUCH LATER THAN OTHER CHILDREN OR HAVE DIFFICULTY IN LEARNING AT SCHOOL.

---

MENTAL DISEASES

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. identify patients with nervous troubles, convulsions and other mental disorders
2. inform people of the dangers of alcohol, wine, beer, coca,hashish, and on abuses of medicines and other drugs
3. assist patients in solving their own problems with the help of their relatives, friends, local authorities, etc.
4. care for and treat patients with convulsions or abnormal behaviour as mentioned in the guide
5. care for children who have difficulties in learning
6. send to the hospital or health centre cases above his competence.

MENTAL DISEASES

YOU CAN AND YOU MUST IMPROVE MENTAL

HEALTH IN YOUR VILLAGE/DISTRICT:

- by looking for and helping people who complain of nervous troubles, people who have convulsions, children who have difficulty in learning and all the people who have been mentally ill for a long time
- by taking care of old people, especially those who forget things easily
- by making sure that young children are properly fed and looked after, especially those who have lost their parents or whose mother has gone away
- by advising people not to drink too much alcohol, wine or beer  
not to take medicines, especially pregnant women  
not to take dangerous drugs (opium, cocaine, Indian hemp, ...)

---

MANY PEOPLE WHO HAVE MENTAL DISEASES ARE TREATED AND ADVISED BY HEALERS OR BY PRIESTS IN THE VILLAGE OR THE DISTRICT. YOU SHOULD GO TO SEE THESE HEALERS OR THESE PRIESTS AND TALK TO THEM. TRY NOT TO OPPOSE THEM, BUT ON THE CONTRARY, OFFER YOUR HELP. THE TREATMENT WHICH YOU MAY SUGGEST CAN SUPPLEMENT THE SKILLS OF THE HEALERS. TRY TO WORK TOGETHER. TELL THEM ALSO TO CALL YOU IF THEY NEED HELP.<sup>1</sup>

---

<sup>1</sup> This paragraph is typical of those which do not necessarily apply to all countries and to all situations. It should be adapted to the conditions characteristic of each country.

MENTAL DISEASES

1. IF THE PATIENT COMPLAINS OF NERVOUS TROUBLE

The patient tells you that he feels weak and that he gets tired easily  
that he has pains in his head, his belly, his  
arms, his legs  
that he has no appetite, that he has difficulty  
in getting to sleep, in having sex

but above all he comes back to see you often because there is something  
new wrong with him, or because he has pains in many parts of his body  
Let the patient talk and listen carefully to what he says.

Ask him if he is worried because

- of family quarrels (with his wife, his children, his parents)
- he does not have any children or because he has too many
- he does not have any money
- he is having difficulties at school or at work
- he is having quarrels in the village (with his neighbours)
- he is the victim of evil spirits ...

1.1 Either you think he has nervous trouble: arrange to  
speak to the patient and his closest relative.

If you do not have the time, tell him to come back another day.

Do not give him any medicines and tell the patient and his family  
that he will get better, but try to find someone in the village  
who can help him solve his problems (a friend, the village chief,  
his boss, a clergyman, the teacher ...)

If he does not get better, or if the patient cannot sleep, feels  
sad, cries a lot, stops eating or working, send him to the  
hospital or the health centre.

1.2 Or you think that the patient probably does not have nervous  
trouble: find out

- if the patient has a temperature of more than 38°
- or he has a cough
- or he is pale,

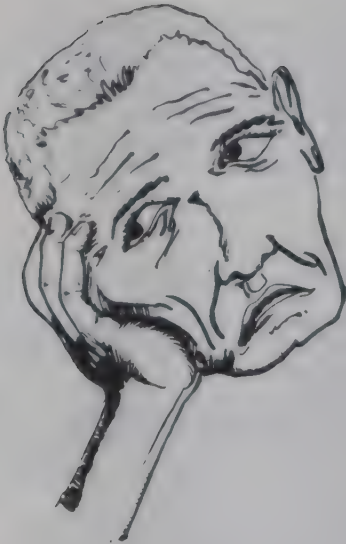
In these cases, see "Feverishness"

" "Respiratory diseases"

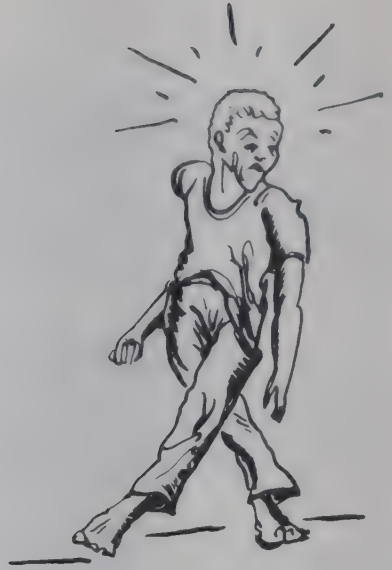
" "Weakness and tiredness".

2. IF, DURING THE PREVIOUS FEW DAYS, THE PATIENT HAS BEEN  
FEELING STRANGE, IF HE NO LONGER THINKS OR NO LONGER  
ACTS LIKE OTHER PEOPLE

- Either, the patient no longer talks normally or says strange  
things
- Or he sees or hears things which other people do not see or do  
not hear
- Or he no longer knows where he is or what he should do
- Or he is angry, or shouts or fights for no reason
- Or he no longer washes, no longer dresses or no longer works
- Or, he runs away from home, refuses to speak or eat



This patient is always sad



This patient behaves in a strange way



This one has convulsions



## MENTAL DISEASES

In all these cases, you should get in touch with the police, the religious authorities and the people in the village/district and tell everyone that this patient needs to be treated, that they must not hit him, or shut him up somewhere or make him leave the village, but that they must be kind to him, and put him in a quiet place. Talk to him in a kind way and make sure that there are not too many people around him.

Examine the patient: take his temperature.

If he has a temperature of  $38^{\circ}$  or more: send him to the hospital or the health centre

But if the patient has had convulsions, give him PHENOBARBITAL (see page 238) before sending him to the hospital or the health centre.

If he has a temperature of less than  $38^{\circ}$ :

1. the patient has perhaps drunk too much alcohol, in which case you should let him sleep for a few hours and if he is no better after he has slept, send him to the hospital or the health centre.
2. the patient has perhaps received a blow on the head, send him to the hospital or the health centre.
3. if the patient has not drunk too much alcohol and has not received a blow on the head, give him CHLORPROMAZINE (see page 237) : 2 tablets morning, noon and night for 2 days. Comfort the family and tell them to give the patient something to eat and drink, not to tie him up and to be kind to him.

See the patient again after the 2 days treatment:

If he is better continue with the CHLORPROMAZINE for 2 weeks and see the patient every 2 days

If he is no better, send him to the hospital or the health centre.

### 3. IF THE PATIENT HAS A CONVULSION OR CONVULSIONS

The patient falls down and no longer answers questions

- then his whole body becomes stiff
- then he has violent movements in his arms and legs
- he has foam (sometimes with blood in it) around the mouth and sometimes he may urinate

After some time, the patient begins to answer when you speak to him, but he does not remember what happened

Always try to find someone who saw the convulsion to make sure that the patient really had a convulsion, because he himself does not remember it.

If it really was a convulsion, put the patient in a quiet place and take his temperature:

MENTAL DISEASES

3.1 Either the patient has a temperature of more than 38°

If the patient is a child of less than 2 years old, give him some ASPIRIN

If the patient is a child of more than 2 years old, give him some ASPIRIN and some CHLOROQUINE and send him to the hospital or the health centre

If the patient is an adult, send him to the hospital or the health centre.

3.2 Or the patient has a temperature of less than 38°

If the patient is a child under 2 years old, do nothing, but see him again on the following day. If the convulsions continue, send him to the hospital or the health centre. If he no longer has any convulsions, ask his family to bring him back if the convulsions start again

If the patient is a child over 2 years old,

- Either, the child had only one convulsion. In this case, do nothing and see the child again a week later

If he has had no more convulsions, ask the family to bring the child back if the convulsions start again

If the child continues to have convulsions, send him to the hospital or the health centre

- Or, the child has had several convulsions. In that case give him PHENOBARBITAL for 6 months, but see him again every month.

If the convulsions continue in spite of the treatment, send him to the hospital or the health centre

If the patient is an adult: for how long has he been having convulsions?

- for less than a year: then send him to the hospital or the health centre

- for more than a year: then give him some PHENOBARBITAL

4. SOME CHILDREN HAVE DIFFICULTY IN LEARNING (or learn more slowly than the other children)

They are children who walk or talk later than the others. At school, they do not learn like the others

You should find these children: by talking with the mothers who bring you their children when they are ill and by talking with the village teachers, especially the ones who teach 1st or 2nd year schoolchildren.

Ask to see these children:

1. who, at 2 years old, cannot walk on their own
2. who, at 3 years old, cannot talk properly
3. who cannot learn anything at school.

Then examine these children:

## MENTAL DISEASES

1. Is the child well-fed? Weigh him and measure him, and see "The badly-fed child"
2. Can the child hear properly? Talk to him very softly behind his head. If he cannot hear you, send him to the hospital or the health centre
3. Can the child see properly? Show him a drawing or a book and ask him to tell you what he can see or read. If he is unable to, send him to the hospital or the health centre
4. Has the child lost his parents or has his mother gone away? Then try to find out who is looking after him. Is he well-fed and well cared-for? If not, get in touch with the family or the village chief or the religious authorities
5. Does the child have convulsions? Then see paragraph 3, page 212
6. Does the child have a stiffness in the arms or legs? The child cannot bend his arms and legs like the other children. If this is the case, send this child to the hospital or the health centre.

But, every time you see such children, explain clearly to the mothers and the teachers that they should help these children so that they become useful and happy people. Even if they only learn slowly, they should be kept in school and then they should be taught a job which is easy and which suits their taste and their ability.

5. IF FOR SEVERAL MONTHS OR YEARS, THE PATIENT HAS BEEN HAVING STRANGE IDEAS OR BEEN DOING STRANGE THINGS

For example:

For several years or months:

- the patient has been staying by himself and talking to himself most of the time
- he has been getting angry when no one has done anything to him
- he has been frightening other people in his family or in the village
- he has not been working or hardly working at all
- he has not been getting dressed or washing anymore.

You should look after these patients:

- 5.1 Firstly, you should find them. To do this, get in touch with the families, the village chief, the police, the village authorities or the authorities of your district
- 5.2 If the family has got rid of the patient, tell the family to take him back and to find him a little job in the village or in the district
- 5.3 Send the patient to the hospital or the health centre for him to be given some medicine
- 5.4 Each month, visit the patient in his home and make sure that:
  1. the patient is taking his medicine regularly
  2. he works regularly
  3. he is happy with his family.

# VENEREAL DISEASES

---

THESE ARE THE DISEASES WHICH A MAN AND A WOMAN MAY PASS ON TO EACH OTHER IN HAVING SEX WHEN ONE OF THEM IS ILL.

THEY ARE CATCHING AND SOMETIMES AFFECT A LARGE NUMBER OF YOUNG ADULTS.

THEY HAVE SERIOUS CONSEQUENCES IF THEY ARE NOT TREATED IMMEDIATELY:

- infection of the internal and external genitals
- sterility in the man and the woman
- miscarriage
- the baby may be born with a venereal disease if the father or the mother have one which has not been treated.

THEY CAN BE EASILY TREATED AND CURED.

YOU SHOULD ALWAYS TREAT THE MAN AND THE WOMAN AT THE SAME TIME.

---

## VENEREAL DISEASES

### LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. recognize three major signs of venereal disease
2. give treatment to a man who has a white/yellow discharge from the penis
3. give treatment to a woman who has a white/yellow discharge from the vagina
4. recognize when the patient is cured
5. send to the hospital any patient who is not cured
6. recognize the danger of a sore place on the penis or on the genital organs of a woman
7. give the correct treatment to a man or woman with sores on the genital organs
8. indicate to people how the disease is spread and how to avoid getting the disease.



VENEREAL DISEASES

A MAN (OR A WOMAN) COMES TO SEE YOU BECAUSE HE OR SHE HAS SOMETHING WRONG WITH THE GENITALS.

EITHER:

1. MOST COMMONLY, IT HURTS WHEN URINATING AND HE OR SHE LOSES A LITTLE WHITE/YELLOW DISCHARGE THROUGH THE GENITALS (drawings 1 and 2)

Later, he or she will have pains in the belly and sterility might occur

You should give the patient an injection of PENICILLIN of 4 million units (4 times 1 million units in the same syringe) every day for 2 days

If you have no Penicillin, give the patient TETRACYCLINE tablets. 8 tablets a day for 4 days

If the white/yellow discharge goes away 5 days after the treatment, the patient is cured

Otherwise, send the patient to the hospital or the health centre.

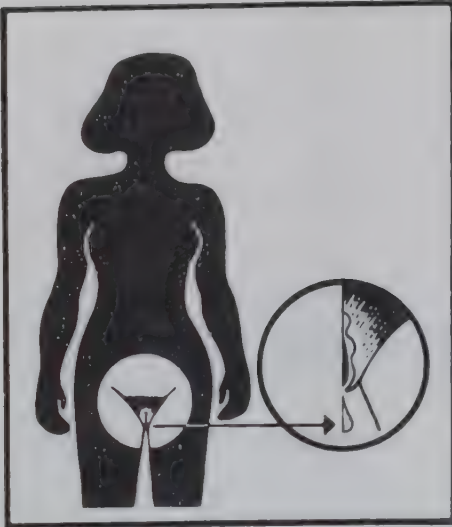
OR:

2. LESS COMMONLY, HE OR SHE HAS A LITTLE SORE (ULCERATION) ON THE GENITALS (drawings 3 and 4)

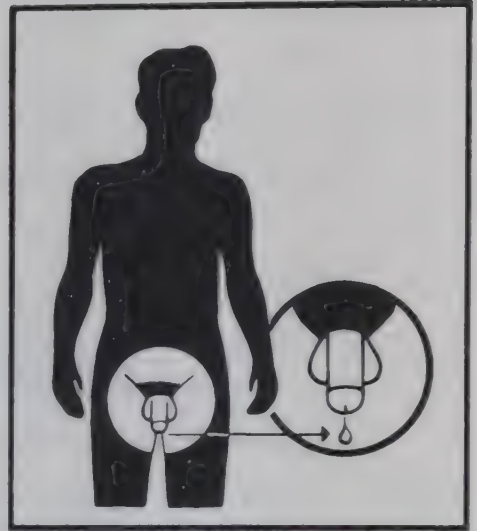
Later, the disease will continue even if the little sore goes away without any treatment. For this reason, if you see this little sore, you should treat it immediately and give the patient an injection of PENICILLIN, 1 million units every day for 10 days. If you have no Penicillin, or

If the ulceration does not go away, send the patient to the hospital or the health centre.

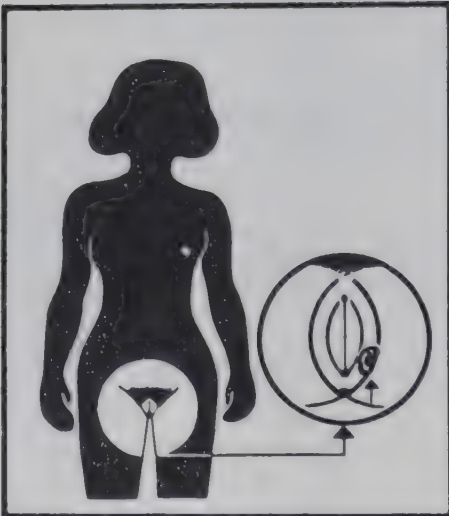




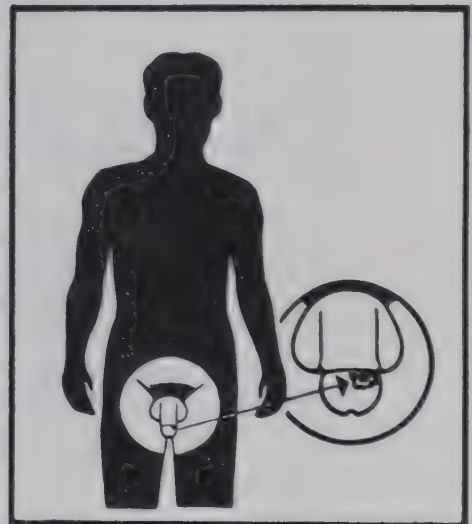
- 1 -



- 2 -



- 3 -



- 4 -

(Drawings by the Family Planning Association)

## VENEREAL DISEASES

DO NOT FORGET THAT:

- VENEREAL DISEASES ARE PASSED ON DURING SEXUAL INTERCOURSE WITH PEOPLE WHO HAVE THESE DISEASES, because the patient often does not know he/she is ill or he/she pays no attention to it
- SEXUAL INTERCOURSE WITH SEVERAL PARTNERS INCREASES THE RISK OF CATCHING THESE DISEASES
- IF THE GENITALS ARE NOT CLEAN, IT ALSO INCREASES THIS RISK.

TELL THE PEOPLE IN YOUR VILLAGE/DISTRICT  
THAT TO AVOID THESE DISEASES, THEY  
SHOULD:

- avoid having sexual intercourse with people who have too many partners
- keep very clean by washing their genitals with soap and water after every time they have sex
- to urinate after each time they have sex
- use sheaths (condoms) (see page 70)

IF SOMEONE THINKS HE HAS A VENEREAL DISEASE,  
HE SHOULD:

- go to get examined and treated as soon as possible, because at the beginning venereal diseases are easy to treat, but later on they become more difficult to treat.

YOU SHOULD ALSO KNOW THAT:

- in women you often cannot see the white/yellow discharge, but they may nevertheless be ill and have pains in the lower belly.
-

Problem 7.1  
FOODSTUFFS

# FOODSTUFFS\*

---

TO STAY IN GOOD HEALTH, YOU MUST EAT. TO EAT WELL,  
YOU MUST OBEY 2 RULES:

1. YOU SHOULD EAT ENOUGH (OTHERWISE YOU WILL NOT HAVE  
ANY STRENGTH TO WORK)
2. YOU SHOULD EAT VARIED FOODS (OTHERWISE YOU WILL  
CATCH DISEASES).

YOU SHOULD TAKE AN INTEREST IN WHAT THE PEOPLE IN YOUR  
VILLAGE OR IN YOUR DISTRICT EAT. YOU SHOULD TRY TO IMPROVE  
THEIR DIET.

---

\* This problem goes beyond the field of health. It is included here to prepare the PHW for his/her role in the development of the community where he/she is living and to show how health and development problems are linked.

FOODSTUFFS

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

1. identify foods which local people do not like to eat
2. tell the people which are the best local foods to eat
3. indicate to farmers, the village chief, and community development workers how to grow new foods
4. organize meetings with village women to demonstrate the preparation and cooking of good local foods for the family
5. give three examples of advice the PHW can give to encourage village people to grow food.

If this field is left like this  
it will not produce anything!



But look! The field has  
been cleaned. It is properly  
prepared to receive the seeds.



The field has been sowed.  
The wheat or the rice has grown.  
Now the village will be able  
to eat more.



FOODSTUFFS

Some children are not growing as quickly as others or the people in the village complain that there is no food or your supervisor asks you what you have done to improve the diet of the children, the men and the women.

WHAT WILL YOU DO ?

1. FIND OUT IF THERE ARE SOME FOODS WHICH THE PEOPLE DO NOT LIKE TO EAT?
2. FIND OUT IF IT IS POSSIBLE TO PRODUCE NEW FOODS IN THE VILLAGE?.
3. ORGANIZE A MEETING WITH THE VILLAGE COUNCIL.

1. ARE THERE SOME FOODS WHICH THE PEOPLE IN THE VILLAGE DO NOT LIKE TO EAT?

1.1 YES. In the village, people have always said that some foods were not good or that it was forbidden to touch them.

1.1.1 Make a list of these foods

1.1.2 Tell the village chief which foods the people should eat, foods which your supervisor has advised (see 3)

1.2 NO. Then:

2. WOULD IT BE POSSIBLE TO PRODUCE NEW FOODS IN THE VILLAGE?

2.1 YES. Is there:

2.1.1 land available for farming, land which is not being used?

2.1.2 new seeds that can be bought?

2.1.3 water to water the land and for the domestic animals to drink?

2.1.4 fertilizer made by leaving plant waste (leaves, vegetables, roots, fruit) in a hole for about 2 months

2.1.5 animals that may be reared.

In these cases, tell the village chief that the people suffer from eating too little and that this will change if more food is produced in the village. Ask the chief to arrange a meeting with the important people in the village.



A GOOD HARVEST  
MUST BE PREPARED!

TO HAVE THIS



DO THIS



Clean your garden,  
protect it with a fence.  
Take away the stones and the weeds.  
Sow, plant and water!

FOODSTUFFS

2.2 NO. Tell the village chief that:

2.2.1 In spite of all the food which there is in the village, there are people who are ill with hunger (children, sick people, disabled people, unemployed people, orphans, widows ...)

2.2.2 Something should be done: discussion with the chiefs of neighbouring villages, with the government, etc...

3. ORGANIZE A MEETING WITH THE VILLAGE COUNCIL

3.1 Ask your supervisor's opinion on points 1.2 and 2.1

3.2 Invite your supervisor to the meeting with the village council and ask him to study and suggest possibilities for developing farming or cattle-rearing in the village

3.3 Listen to what the supervisor says so that you can repeat it and make sure that his advice is followed:

3.3.1 Possibilities for developing farming. For example:

- fruit: to plant trees on a well-exposed piece of land, near the school so that the pupils can water them
- vegetables: to sow on well-irrigated land ...
- cereals: to till large areas ...
- fodder: to sow in fields after the harvest ...

3.3.2 Possibilities for developing cattle-rearing. For example:

- sheep and pigs: to find fodder, to watch the flocks ...
- poultry: to build a poultry yard, to watch over breeding

3.4 Make the village council discuss the advantages and requirements of each possibility for farming or cattle-rearing in the presence of your supervisor

3.5 Let it chose one or several projects for farming or cattle-rearing (for example: growing spinach)

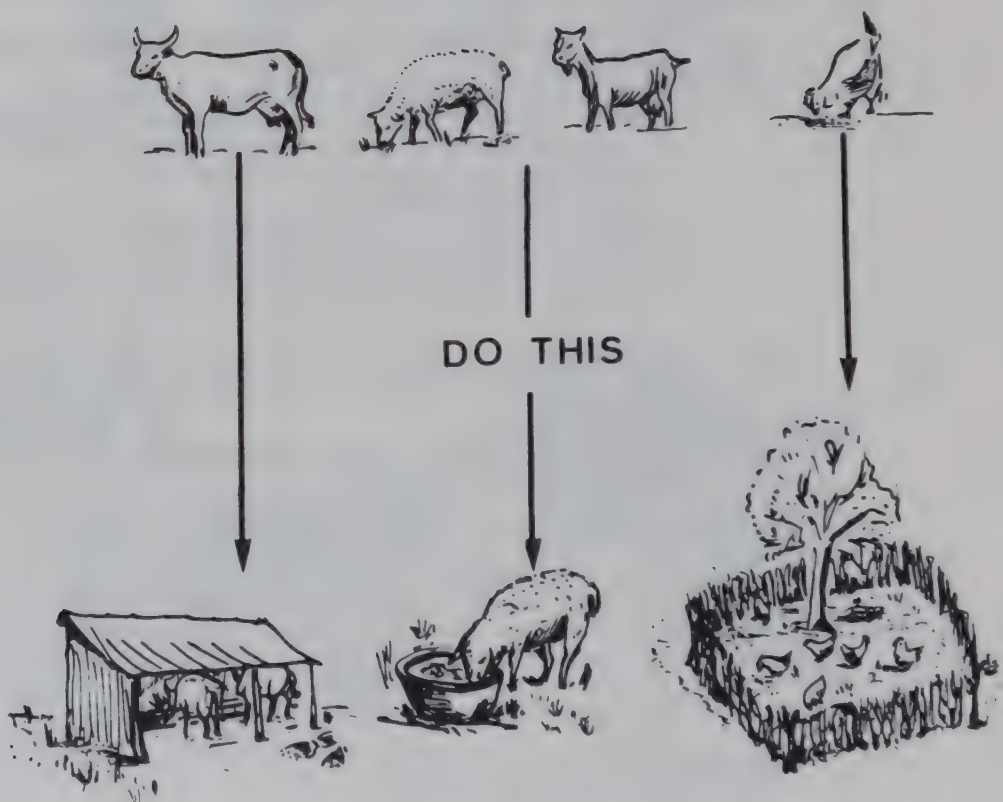
Tell the council what the people in the village must do for this project: for example, to grow spinach, they must:

- choose some land and prepare it: take away the stones, till it, cover it with animal or vegetable fertilizer
  - find seeds and plant them at intervals (see drawing No. 2)
  - find water to water it regularly
  - build a fence to prevent the animals from wrecking it
- Say that your supervisor can help them in this work.

3.6 Ask the council to choose a man from the village to supervise the new farming or cattle-rearing activities who will stay in contact with you and your supervisor.

TO REAR ANIMALS  
YOU SHOULD LOOK AFTER THEM!  
Feed them  
give them something to drink  
give them shelter

TO HAVE THIS



FOODSTUFFS

B E C A R E F U L :

YOU WILL NOT FIND FOOD WITHOUT DOING ANYTHING ABOUT IT.

PLANTS WILL ONLY GROW IF THE FIELDS ARE PREPARED.

ANIMALS WILL GROW AND BREED ONLY IF THEY ARE GIVEN FOOD AND WATER.

TO OBTAIN PLANTS AND ANIMALS, WORK WITH OTHER PEOPLE IN THE VILLAGE, AND HELP EACH OTHER.

YOU SHOULD ABOVE ALL RELY ON YOURSELF AND ON THE RESOURCES IN THE VILLAGE TO DEVELOP THE VILLAGE AND TO IMPROVE THE LIFE OF THE PEOPLE THERE. THERE IS ALWAYS SOMETHING WHICH CAN BE DONE ON THE SPOT WITH THE MEANS OF THE VILLAGE: YOU SHOULD LOOK FOR POSSIBILITIES, FIND THEM, DISCUSS THEM AND THEN ACT.

---

Problem 7.2  
TRANSPORT AND COMMUNICATION  
DEVELOPMENT

# TRANSPORT AND COMMUNICATION DEVELOPMENT\*

---

A TOWN MAY BRING YOU A LOT OF ADVANTAGES, BUT YOU MUST:

EITHER GO THERE

OR MAKE THE PEOPLE FROM THE TOWN COME TO YOUR VILLAGE.

THE MORE COMMUNICATION THERE IS, THE BETTER IT WILL BE.

TO ACHIEVE THIS, DEVELOP MEANS OF  
TRANSPORT.

---

\* This problem also goes beyond the field of health. It is included to prepare the PHW for his role in the development of the community where he (or she) lives and to show him how much the problems of health and the problems of development are linked.

TRANSPORT AND COMMUNICATION  
DEVELOPMENT

LEARNING OBJECTIVES

At the end of his training, the PHW should be able to:

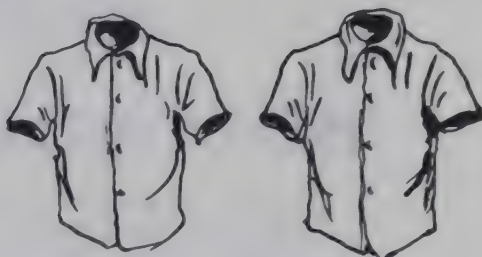
1. recommend a means of transport to enable the villagers to get to town quickly: mule, donkey, horse, cart or bus
2. make a stretcher
3. explain the advantages of being able to get to town in a cart pulled by a donkey, a mule, or a horse
4. explain that, to get to town quickly, three things are needed:
  - a) have a means of transport
  - b) have someone responsible for the transport (driver)
  - c) have good paths
5. ask his colleague in the next village for advice and show him what has been done
6. ask important people from the town to come to the village to show them what has been done in the village and to ask their advice.



HOW TO BUILD A STRETCHER



with 2 sticks 2 metres long  
and  
2 shirts



STRETCHER



in this way it will be  
possible to carry the  
patient comfortably to  
the hospital or the  
health centre

TRANSPORT AND COMMUNICATION  
DEVELOPMENT

*Some patients have no means of transport to get to the hospital or the health centre or very few people from the neighbouring town or villages ever come to visit your village.*

WHAT SHOULD YOU DO?

1. To get to town more quickly
2. To get to your village more easily.

1. TO GET TO TOWN MORE QUICKLY

1.1 What means do you want to use?

- 1.1.1 The stretcher for carrying sick people. To build a stretcher,
  - cut two big sticks 2 metres long
  - push the sticks through 2 shirts or fasten creepers between the sticks (see drawing)
- 1.1.2 A mule, a donkey, a horse:
  - ask the village chief to choose an animal which will always be kept ready to carry a sick person or to pull a cart
  - or ask the chief to get the village council to buy an animal for this purpose
- 1.1.3 A cart:
  - ask the village council to choose a person who can make a cart
  - find an animal to pull the cart (see 1.1.2)
- 1.1.4 The bus: if the bus passes not too far from the village:
  - build a path from the village to the main road
  - ask the bus to stop at that place

1.2 Which people in the village will be responsible for these things?

- 1.2.1 For the stretcher: ask the chief to choose 3 people to carry the patient on a stretcher to the hospital or the health centre
- 1.2.2 Ask the chief to choose a driver who will look after the animal or the cart and who will drive it to town.

Improve and keep up  
your paths,  
your life will be made  
easier and more  
pleasant



TRANSPORT AND COMMUNICATION  
DEVELOPMENT

1.3 Which way will you go?

1.3.1 By the old path,

- ask for the path to be made wide enough to take a cart
- get rid of the weeds, move the stones, fill in the holes
- ask for someone in the village to be chosen to look after the path

1.3.2 By the new path,

- make the path go where there are the fewest bumps and holes
- make the path reach the main road as quickly as possible
- for the rest, see 1.3.1.

N O T E:

*If people can get to town more quickly, not only will patients arrive at the hospital sooner, but the village people will be able to get to the market more easily and the people from the town will come and see you more often.*

2. TO REACH YOUR VILLAGE MORE EASILY

2.1 Who will you invite to come from town?

Your supervisor, the agriculture adviser, the head teacher,  
the government representative, etc.

For this:

- 2.1.1 there should be good paths which lead to the village (see 1.3)
- 2.1.2 they should be asked for advice on improving the village
- 2.1.3 they should be asked to come and see what you have done
- 2.1.4 they should be met in town and accompanied to the village

2.2 Who will you invite to come from the other villages?

The chief or any other important person from a neighbouring village  
(a teacher, a priest, ...)

For this:

- 2.2.1 there should be good paths going to the other villages
- 2.2.2 they should be shown what you have done to improve the village,  
and you should ask their advice and ask to visit their  
village when they have done something good.

TRANSPORT AND COMMUNICATION  
DEVELOPMENT

N O T E:

THE EASIER IT IS TO USE THE TRACKS OR THE PATHS, THE  
EASIER IT WILL BE TO GET TO TOWN AND TO YOUR VILLAGE.

BUT GOOD TRACKS AND GOOD PATHS REQUIRE SOME EFFORT.

YOU SHOULD FIRST BUILD THEM, THEN THEY SHOULD BE REPAIRED  
REGULARLY EACH TIME THEY ARE DAMAGED.

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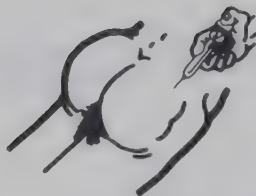
# ANNEXES



- 1 - MEDECINES
- 2 - A FEW TECHNIQUES
- 3 - ANATOMICAL DIAGRAMS
- 4 - INDEX/GLOSSARY



## MEDICINES



*How to give them*

*How much to give*



### 1. Some general information

Remember that:

1) The dosage of medicines is different for a baby under one year old, a small child (1 to 3 years old), a child (4 to 12 years old) and an adult (or a child over 12).

2) Medicines may be given in different ways:

either by an injection

or in tablets

or in drops

or in a liquid or an ointment which you put on the skin.

3) The medicine will cure the patient only if it is given in the proper way:

- in the case of injections (see techniques, pages 242 - 246)
- in the case of tablets. For babies and children, for example, crush the tablets and mix them with milk or fruit juice or treacle or jam
- in the case of drops, count the drops
- in the case of liquids or ointments, spread them on the skin using a clean piece of cloth or a clean piece of cotton wool.

4) The medicine may be given in one go or in several. When it must be taken several times a day, there should be an interval of time between each dose (for example: 1 tablet at 8.00 a.m., 1 at noon, 1 at 4.00 p.m. and 1 at 8.00 p.m.)

5) Do not consult this list unless you have been instructed to do so in a chapter of the Guide.

6) Never buy and never use a medicine which you do not know: this could be very dangerous.

### Important remarks:

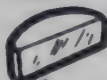
1. The names of the medicines given in this Guide are the common names. Each country should specify any changes which it may wish to make in the names.

2. The dosages and the packaging may vary from one country to another. They should therefore be revised to adapt them to local conditions of use.

1 tablet








1/2 tablet


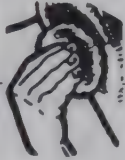










1/4 tablet



2. How to use the medicines mentioned in this Guide

NAME OF MEDICINE	MAINLY FOR TREATMENT OF	HOW TO GIVE IT	HOW MUCH TO GIVE			
			BABY less than 1 year old	SMALL CHILD for 1 to 3 years	CHILD from 4 to 12 years	ADULT over 12 years old
ASPIRIN	Feverishness and pains	 500 mg. tablets	-	$\frac{1}{4}$	$\frac{1}{2}$ 3 times a day	1 to 3
ATROPINE	Abdominal pains	 I.M. injection	-	-	-	$\frac{1}{4}$ mg. repeat once if necessary
AUREOMYCIN (eye ointment)	Eye diseases	ointment	put a little ointment in the corner of the eye 2 or 3 times a day for 3 to 5 days			
BELLADONNA tincture	Abdominal pains	 drops in a glass of water	-	3 drops per year of age up to 30 drops		30 drops
BENZYL BENZOATE	Skin diseases	liquid to put on the skin	First wash the skin with soap and water, leave to dry then put the liquid on the skin using a clean cloth. Repeat for 3 days			
CHLOROQUINE	Feverishness (treatment of malaria)	 100 mg. tablets	$\frac{1}{2}$	1	3 for 3 days	6
CHLORPROMAZINE	Mental diseases	 25 mg. tablets	-	-	1 tablet morning, noon and night for 2 days (more if necessary, see page 212)	2 tablets

NAME OF MEDICINE	MAINLY FOR TREATMENT OF	HOW TO GIVE IT	HOW MUCH TO GIVE			
			BABY less than 1 year old	SMALL CHILD for 1 to 3 years	CHILD from 4 to 12 years	ADULT over 12 years old
ERGOTAMINE	Bleeding after delivery or miscarriage	 1 mg. tablets	-	-	-	1 to 2 repeat 1 or 2 times if necessary
GENTIAN VIOLET or TINCTURE OF IODINE	Cleaning wounds	 liquid to put on skin	First wash the skin with soap and water, leave to dry then put the liquid on the skin with a clean cloth			
MEPACRINE	Against flat worms	 100 mg. tablets	-	4	6	10 Laxative the night before. Tablets to be taken in the morning in one go on an empty stomach
OXYTOCINE	Expulsion of placenta To stop bleeding quickly after delivery or miscarriage	 I.M. injection ampoules at 5 I.U.	-	-	-	1 I.M. injection of a 5 I.U. ampoule
PROCAINE PENICILLIN (aqueous solution)	Infections	I.M. injection 	-	250 000 units	500 000 units	1 000 000 units every day for 3 days
PHENOBARBITAL	To calm, to make an excited person sleep	 50 mg. tablets	-	$\frac{1}{2}$	1	1 to 2 two or three times a day for 2 days. Then half the dosage.

NAME OF MEDICINE	MAINLY FOR TREATMENT OF	HOW TO GIVE IT	HOW MUCH TO GIVE			
			BABY less than 1 year old	SMALL CHILD from 1 to 3 years	CHILD from 4 to 12 years	ADULT over 12 years old
PIPERAZINE	Against round worms	 500 mg. tablets (crushed in a spoon)	2	3 or 4	6	8
	Against very small worms		$\frac{1}{2}$	1	$1\frac{1}{2}$	
SULFADIAZINE	Infections	 500 mg. tablets	$\frac{1}{2}$	1	2	3
IRON SULFATE	Weakness Tiredness	 250 mg. tablets	-	-	1	to be taken with food twice a day for 1 month
TETRACYCLINE	Infections	 250 mg. tablets	1/5	$\frac{1}{2}$	1	1 to 3
				four times a day for 3 days		

A FEW

## TECHNIQUES

### 1. TAKING A PATIENT'S TEMPERATURE

Follow the 4 stages described below:

1. Ask the patient to push all the small part of the thermometer (see drawing) into his anus. If the patient is a child or someone who is unable to do it himself, push the thermometer in yourself.
2. Leave the thermometer in this position for about two minutes. If the patient is an adult, he should be lying down on his side. If the patient is a child, (especially a small child) he should be lying on his belly and you should hold him (see drawing).
3. Take the thermometer out and read up to which mark the line inside the thermometer has reached. If the line is above  $37^{\circ}$  or  $37.5^{\circ}$  (that is to say in between the figures 37 and 38), the patient is feverish. The higher the line has risen, the more feverish the patient will be.
4. Clean the part of the thermometer which has been inside the anus with some cotton wool and some soapy water. Put the thermometer away so that it does not fall on the ground and break.



40°



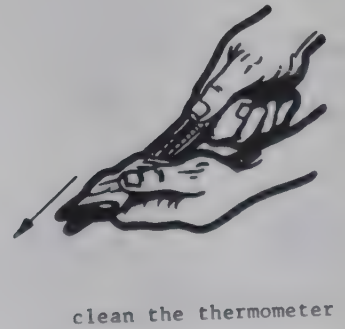
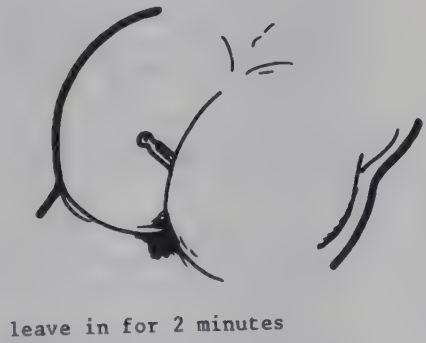
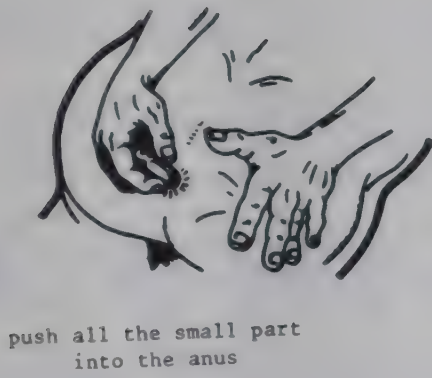
37°



38°5

What temperature do these thermometers show?



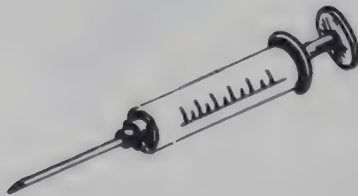


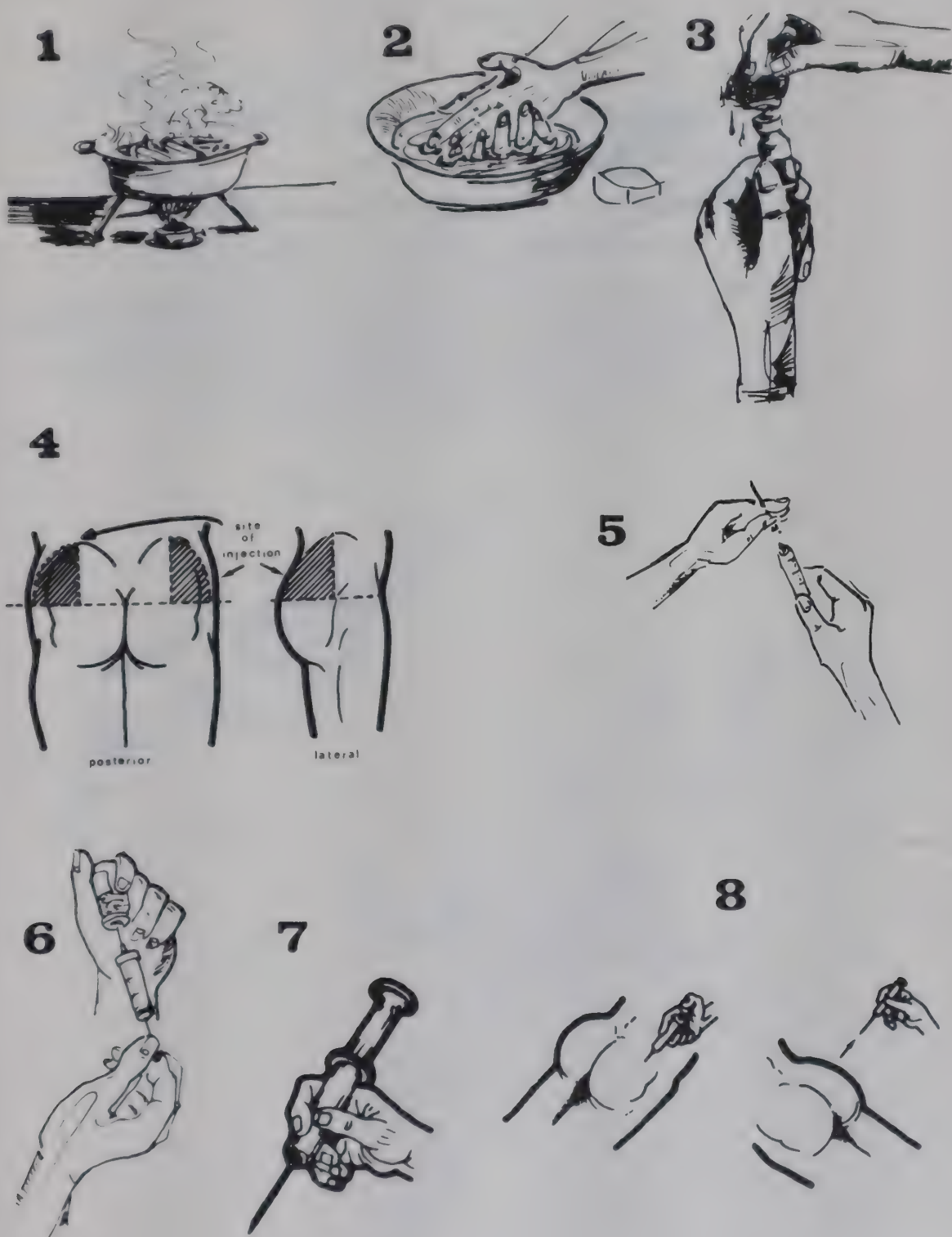


## 2. INTRAMUSCULAR INJECTION (in the buttocks)

Follow the 8 stages shown in the drawings:

1. Put the two parts of the syringe and the needle in a metal container (a metal pan or tin). Cover them with water and boil them for ten minutes.
2. Wash your hands with clean water and soap. Rub your hands hard one against the other. Rinse in clean water.
3. Clean the lid of the little bottle (which contains the Penicillin or any other substance to be injected), using a swab wetted with a disinfectant, such as surgical spirit, alcohol, gentian violet: rub hard two or three times.
4. Using the same swab, rub two or three times the place where you are going to put the needle in the buttocks for the intramuscular injection, (on the forearm for a subcutaneous injection). On the buttocks choose a place for the injection which is fairly high up and towards the side, as shown in the drawing (see stage 4).
5. Put the two parts of the needle together and fit the needle in firmly. To do this, take the needle at its base, that is to say by the part which is not sharp.
6. Push the needle and the syringe into the upside-down bottle. Push it in about one centimetre. Draw out the quantity needed and pull the syringe out by holding the base of the needle.
7. Hold the syringe as shown in the drawing. Stand behind the patient and choose the place on the buttocks where you are going to put the needle.
8. Push the needle and the syringe in quickly until the needle goes in about two centimetres at least. Press the mobile part of the syringe until all the liquid in the syringe has gone. Take everything out (the needle and the syringe) by holding the base of the needle.





3. SUB-CUTANEOUS INJECTION (in the arm or the forearm)

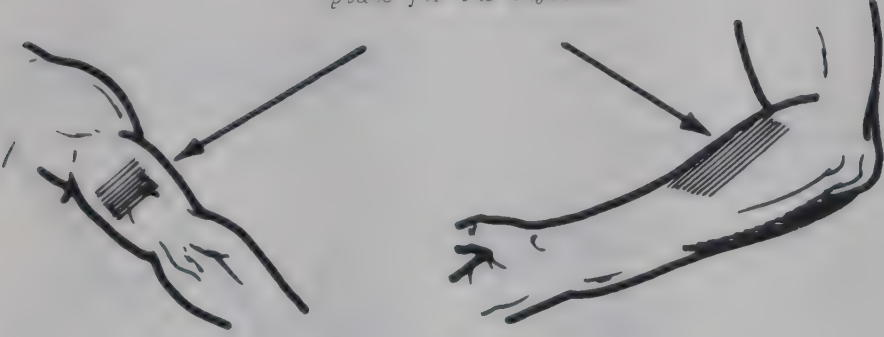
Follow the stages shown in the drawings:

For stages 1, 2, 3, 5 and 6, see "Intramuscular injection"

7. Hold the syringe as shown in the drawing opposite.

8. Make a fold in the skin of the forearm (or the arm), using your left hand. Push the needle into the skin which is pulled out, so that the needle goes in about one centimetre. Once the needle is underneath the skin, let go of the skin which you were holding in your left hand and press on the mobile part of the syringe to make all the liquid go in. Pull the syringe and the needle out by holding the needle at its base.

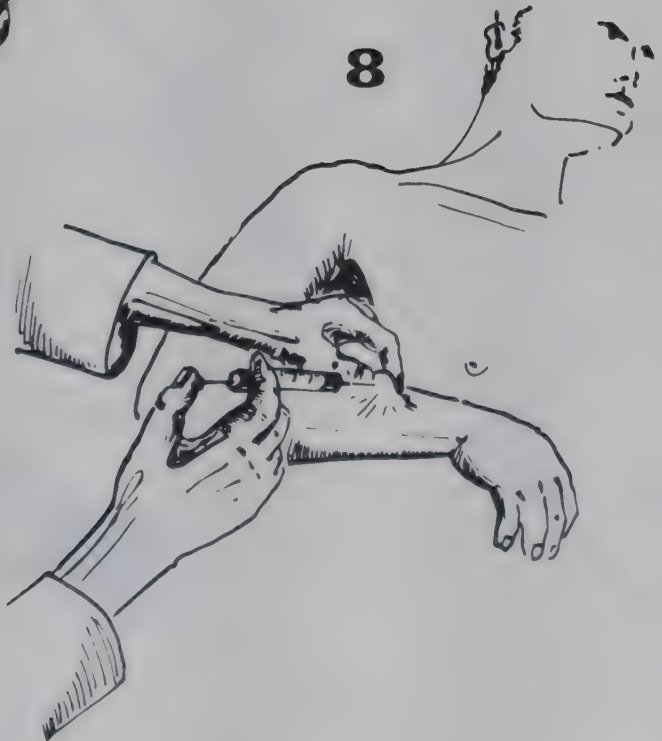
place for the injection



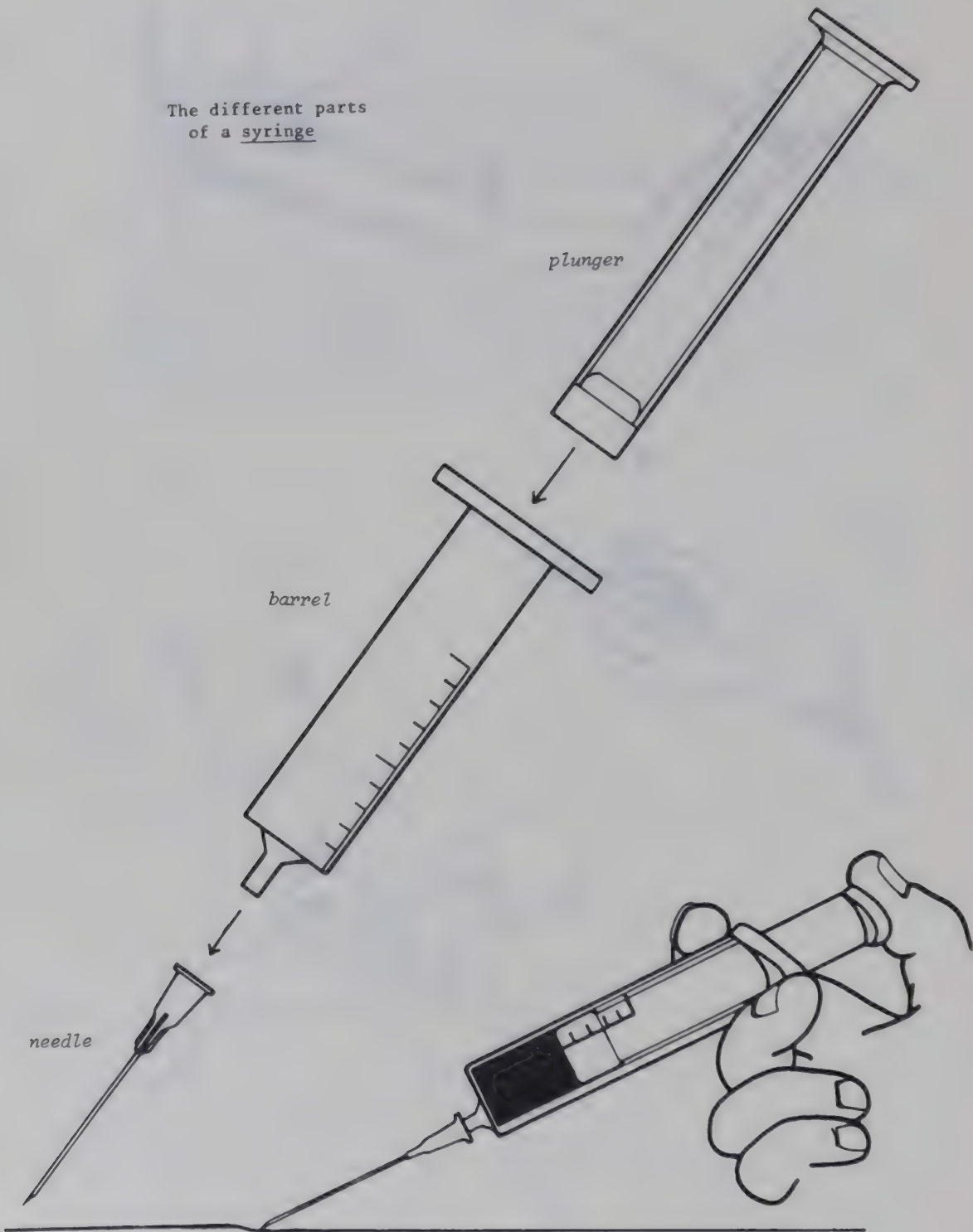
7



8



The different parts  
of a syringe

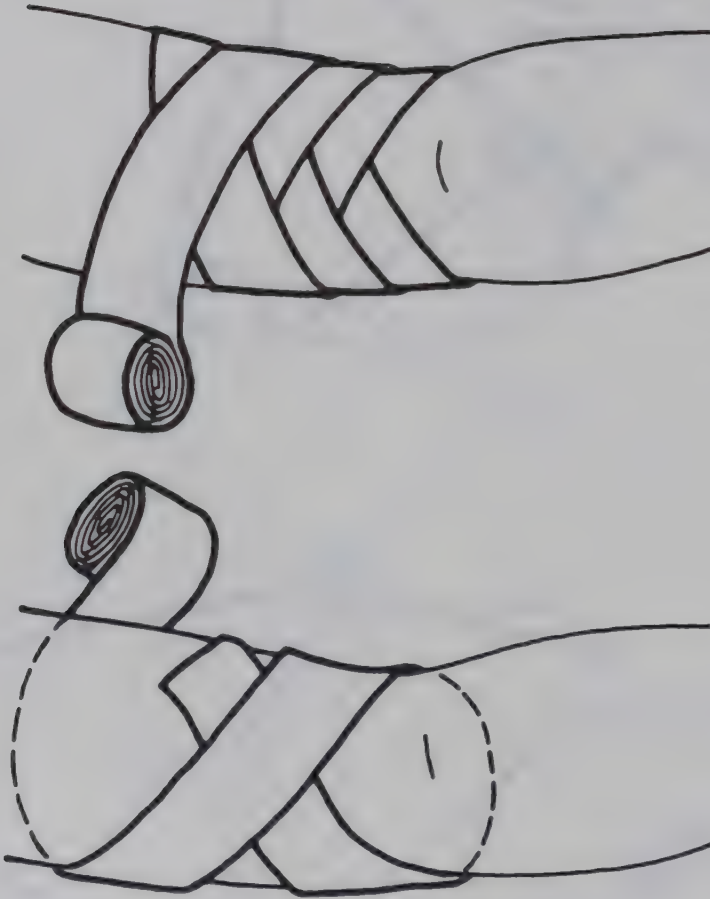


4. A FEW EXAMPLES OF BANDAGES  
(taken from the WHO/REMAHA  
illustration bank)

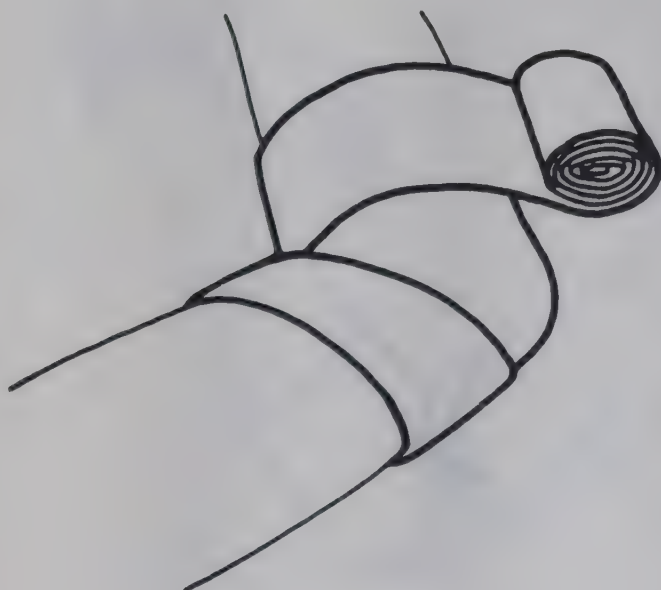
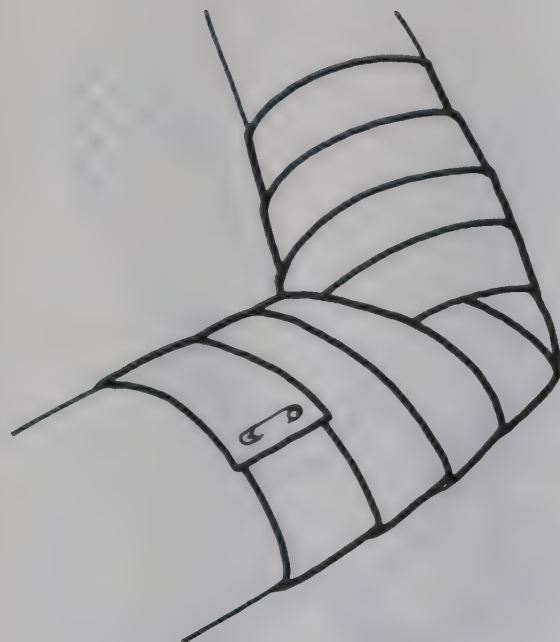


ARM SLING / BRAS EN ÉCHARPE





ROLLER BANDAGE : UPPER ARM / BANDAGE CIRCULAIRE - BRAS



ROLLER BANDAGE : ELBOW / BANDAGE CIRCULAIRE - COUDE



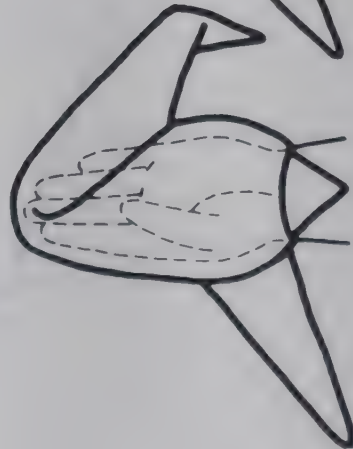
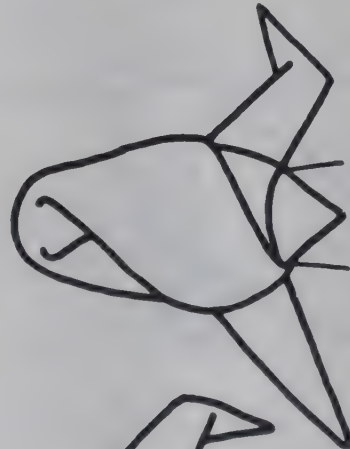
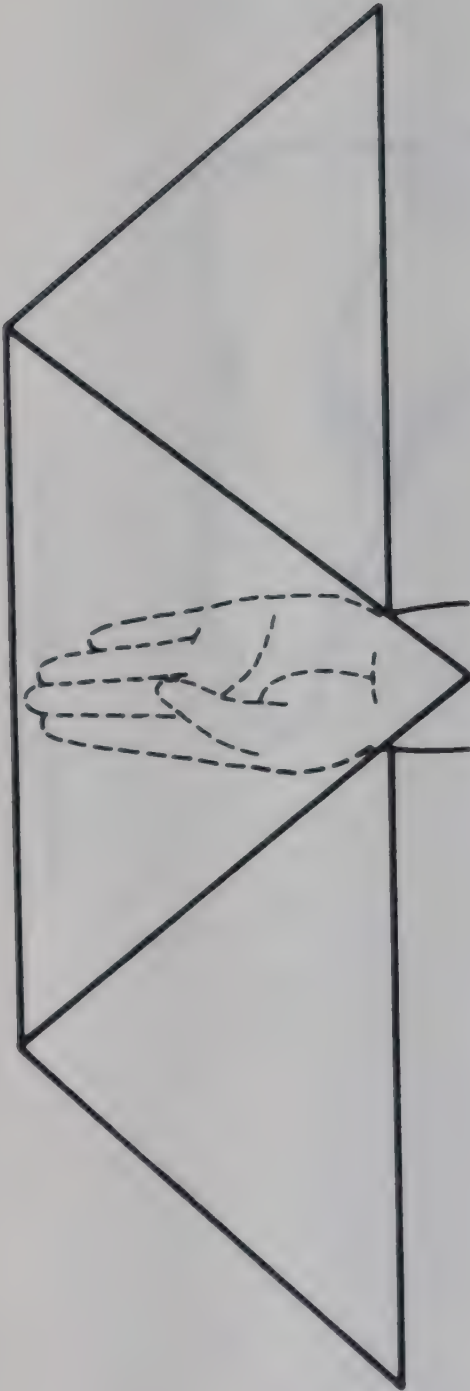
ELBOW BANDAGE / BANDAGE DU COUDE



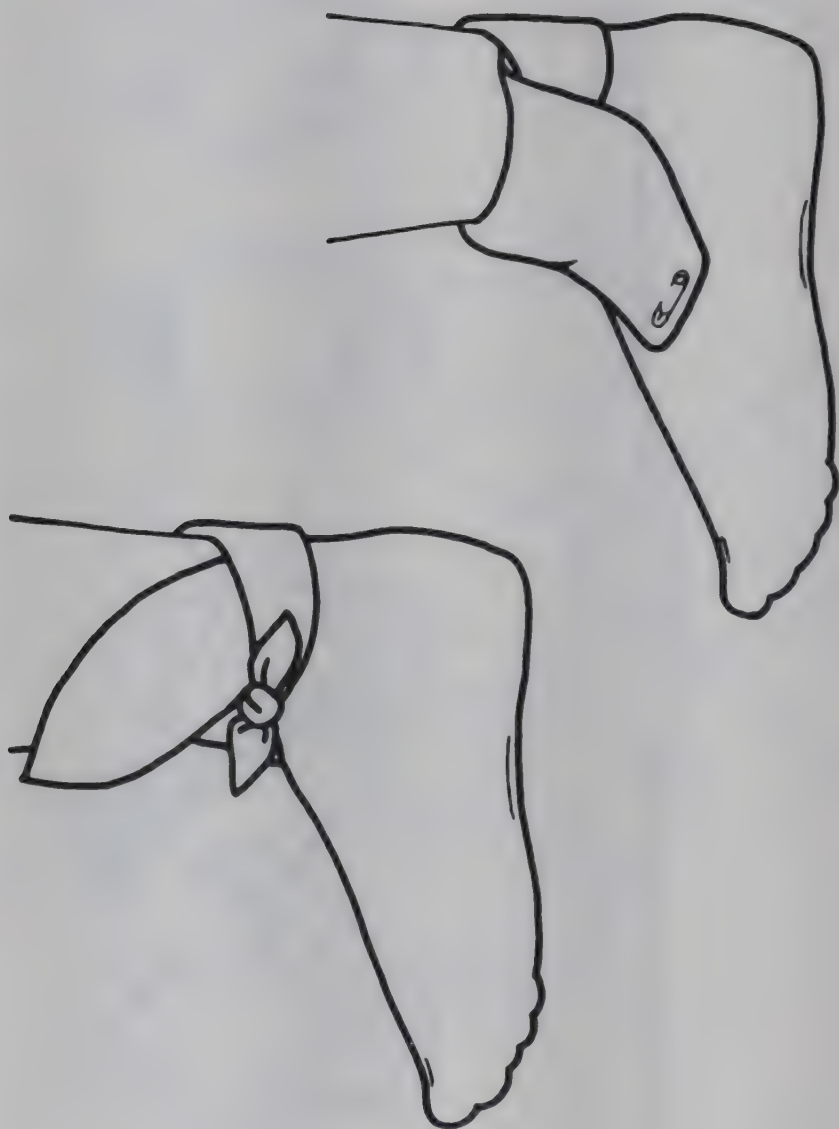
ROLLER BANDAGE : FOREARM / BANDAGE CIRCULAIRE - AVANT - BRAS



ROLLER BANDAGE : HAND / BANDAGE CIRCULAIRE - MAIN







FOOT BANDAGE / BANDAGE DU PIED

## 5. COUNTING THE PULSE

1. Have a watch with a second hand in front of you.
2. Place two fingers of your right hand above the patient's wrist as indicated on the drawing.



3. Press very slightly. You should perceive a regular beating which is the pulse.

4. Count it for a full minute looking at your watch: the figure you reach is the pulse rate.

Normally it is between 70 and 80 per minute.

It increases with:

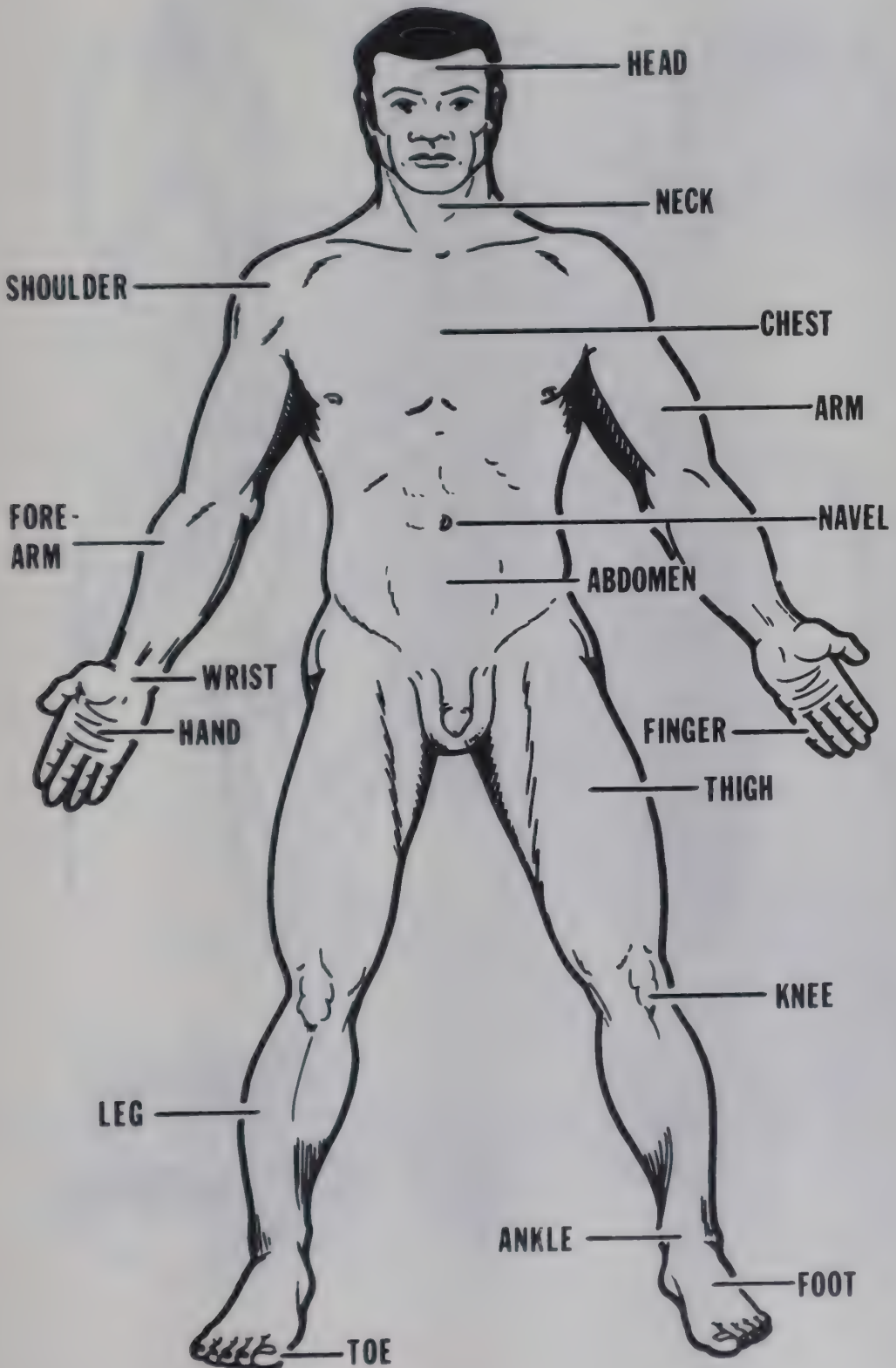
- effort (so take the pulse when your patient has rested)
- fever ( $38^{\circ}$  = around 100  
 $39^{\circ}$  = around 120)
- dehydration (a pulse rate of 130 without fever may be a sign of severe dehydration)
- some diseases of the heart.

6. OTHER TECHNIQUES CAN BE FOUND IN THE TEXT AND ILLUSTRATIONS:

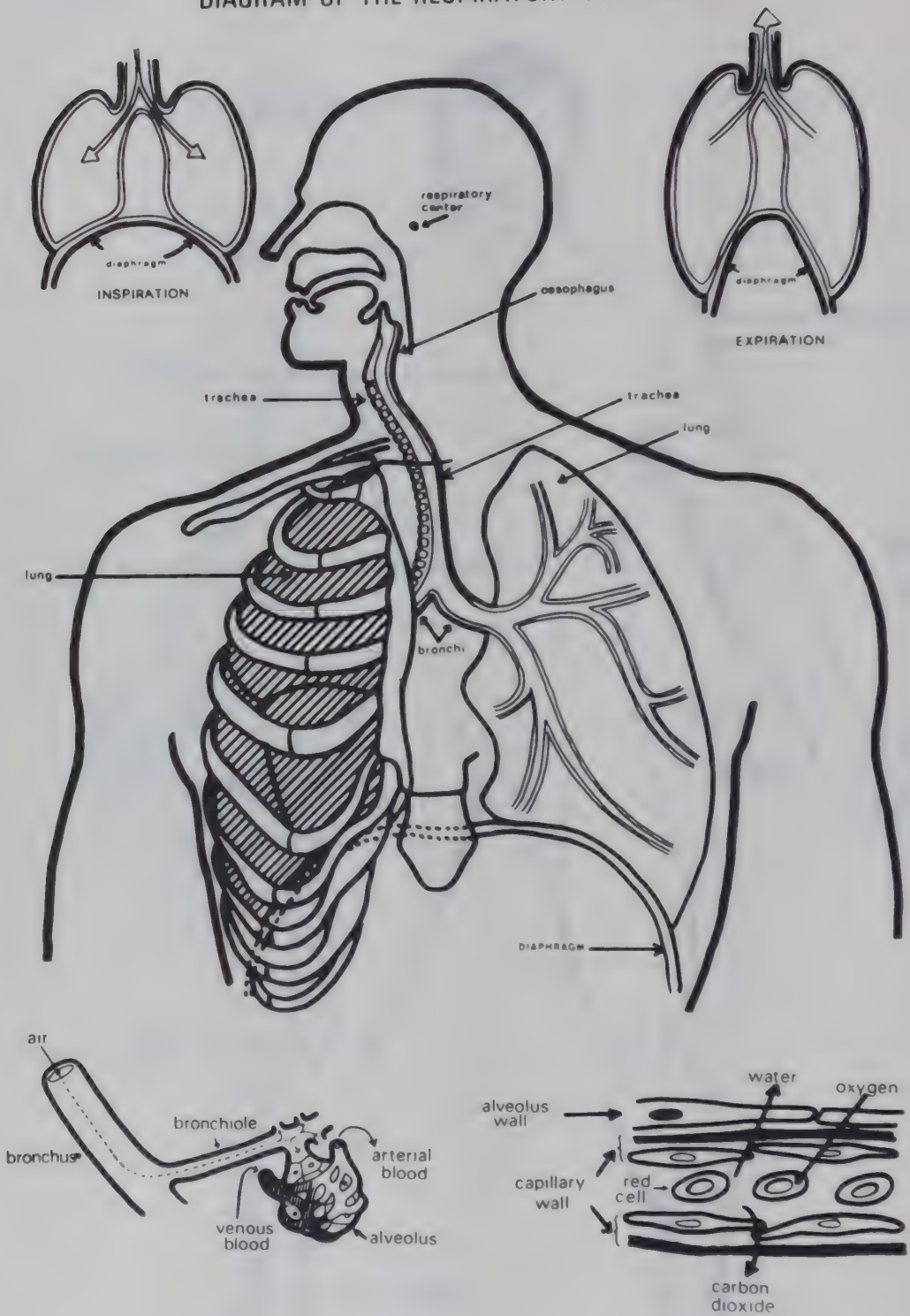
	<u>Pages</u>
- How to recognize if the patient's neck is stiff .. .. .	14 - 167
- How to prepare special liquid against diarrhoea .. .. .	22 - 23
- How to determine the age of a pregnancy .. .. .	42 - 43
- How to confirm that feet or legs are swollen .. .. .	46 - 47, 189
- What to do at the time of a delivery .. .. .	49 - 58
- How to tie and cut the cord .. .. .	55 - 56
- Hot compresses on a hurting breast .. .. .	64 - 65
- Hot compresses on the skin .. .. .	203 - 204
- How to wash a baby .. .. .	66
- Drawing up of a growth chart .. .. .	85 - 86
- How to prepare a special drink for a child who is just skin and bone .. .. .	91 - 92
- How to clean and dress a burn .. .. .	94 - 101
- How to clean and dress a wound .. .. .	102 - 111
- How to make a splint .. .. .	115 - 116
- How to treat a dog bite .. .. .	120 - 121
- How to treat a snake bite .. .. .	122 - 123
- A properly built latrine .. .. .	134
- What you can do with waste .. .. .	141
- How to put ointment on an eye .. .. .	162 - 163
- Mouthwash .. .. .	198
- How to build a stretcher .. .. .	230 - 231

# ANATOMICAL DIAGRAMS

ANNEX 3



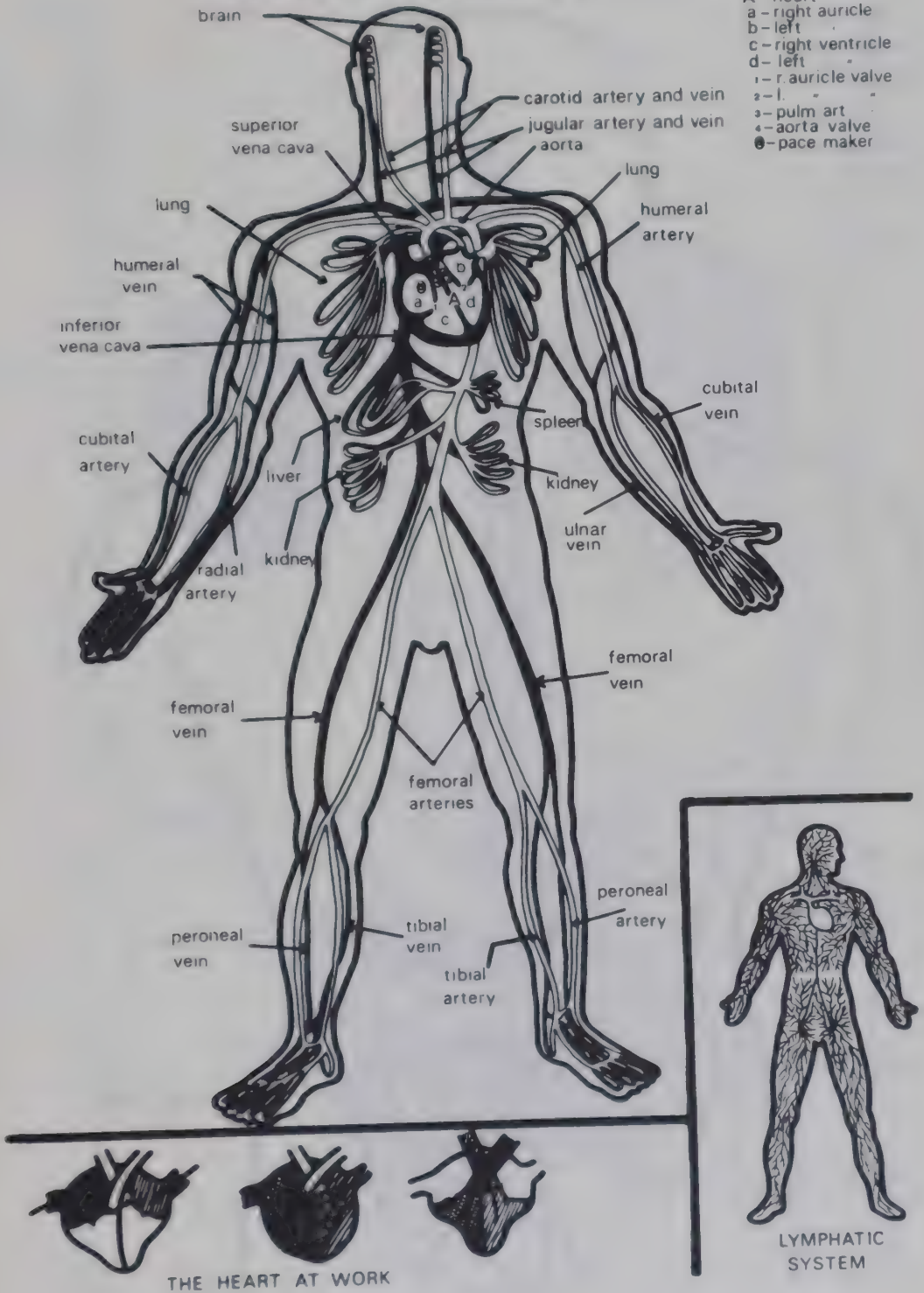
## DIAGRAM OF THE RESPIRATORY SYSTEM





# DIAGRAM OF THE CIRCULATORY SYSTEM

- A - heart
- a - right auricle
- b - left
- c - right ventricle
- d - left
- 1 - r. auricle valve
- 2 - l. "
- 3 - pulm art
- 4 - aorta valve
- ⊙ - pace maker



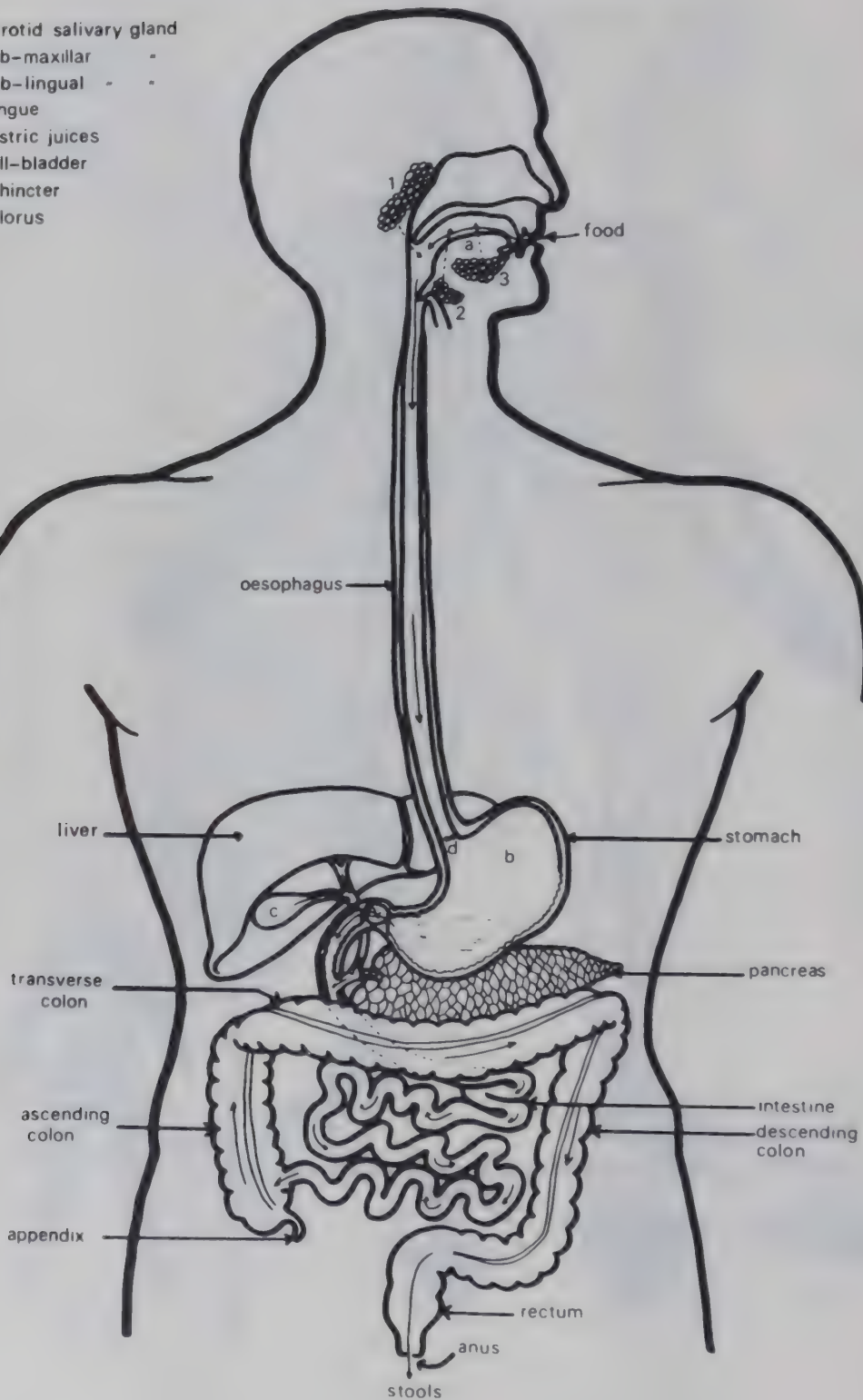
THE HEART AT WORK

LYMPHATIC SYSTEM

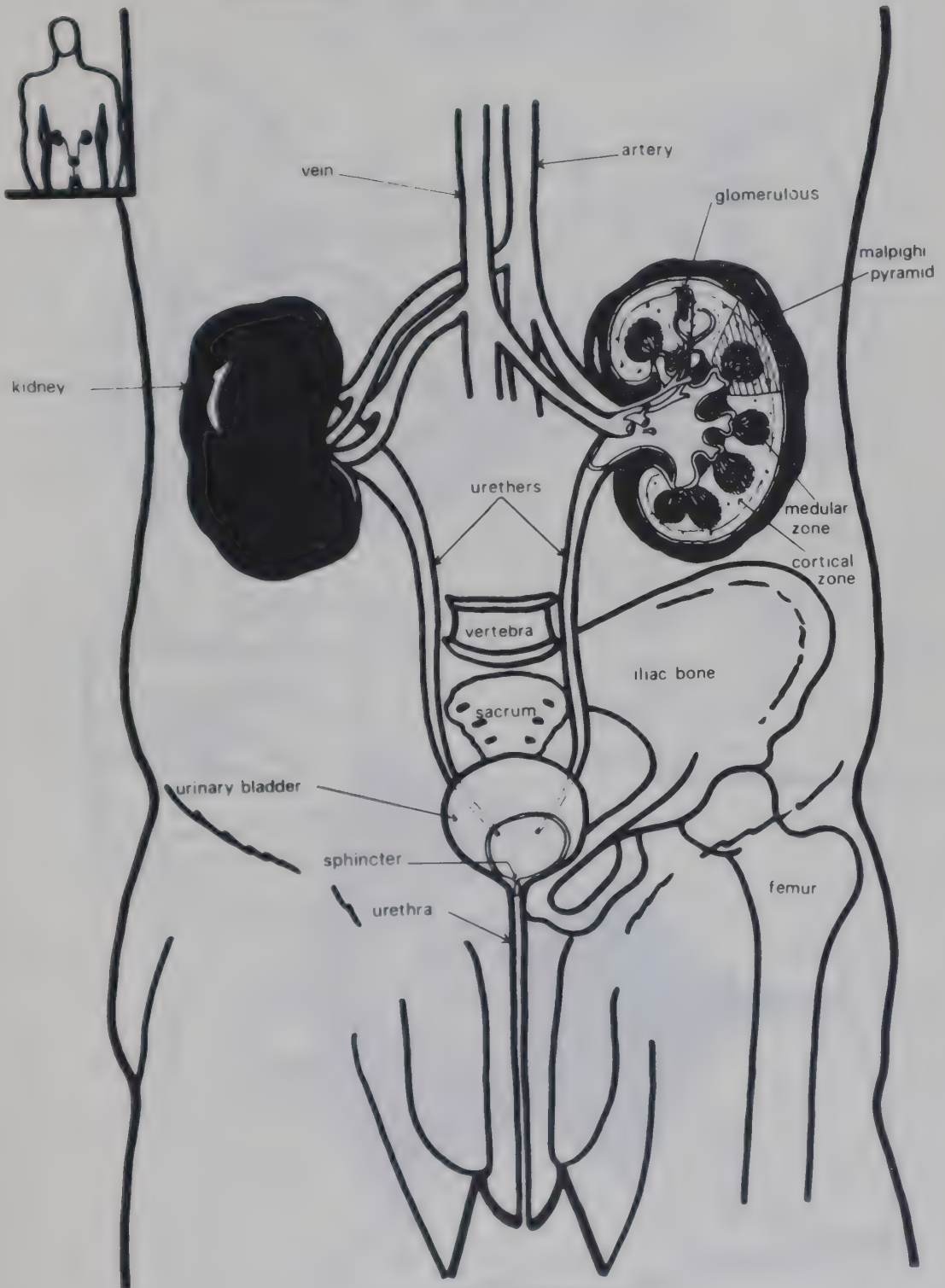


## DIAGRAM OF THE DIGESTIVE SYSTEM

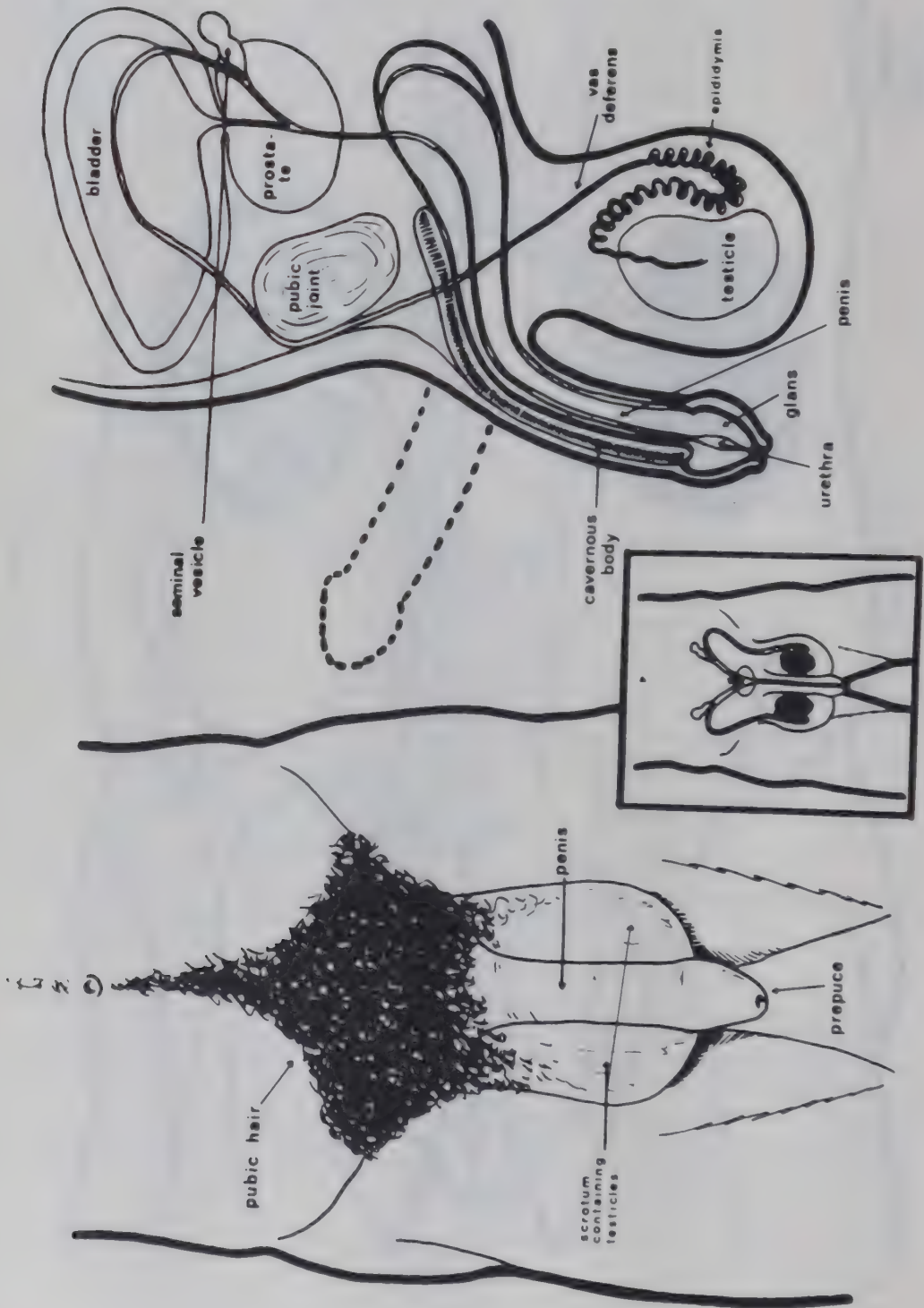
- 1- parotid salivary gland
- 2- sub-maxillar -
- 3- sub-lingual -
- a- tongue
- b- gastric juices
- c- gall-bladder
- d- sphincter
- e- pylorus



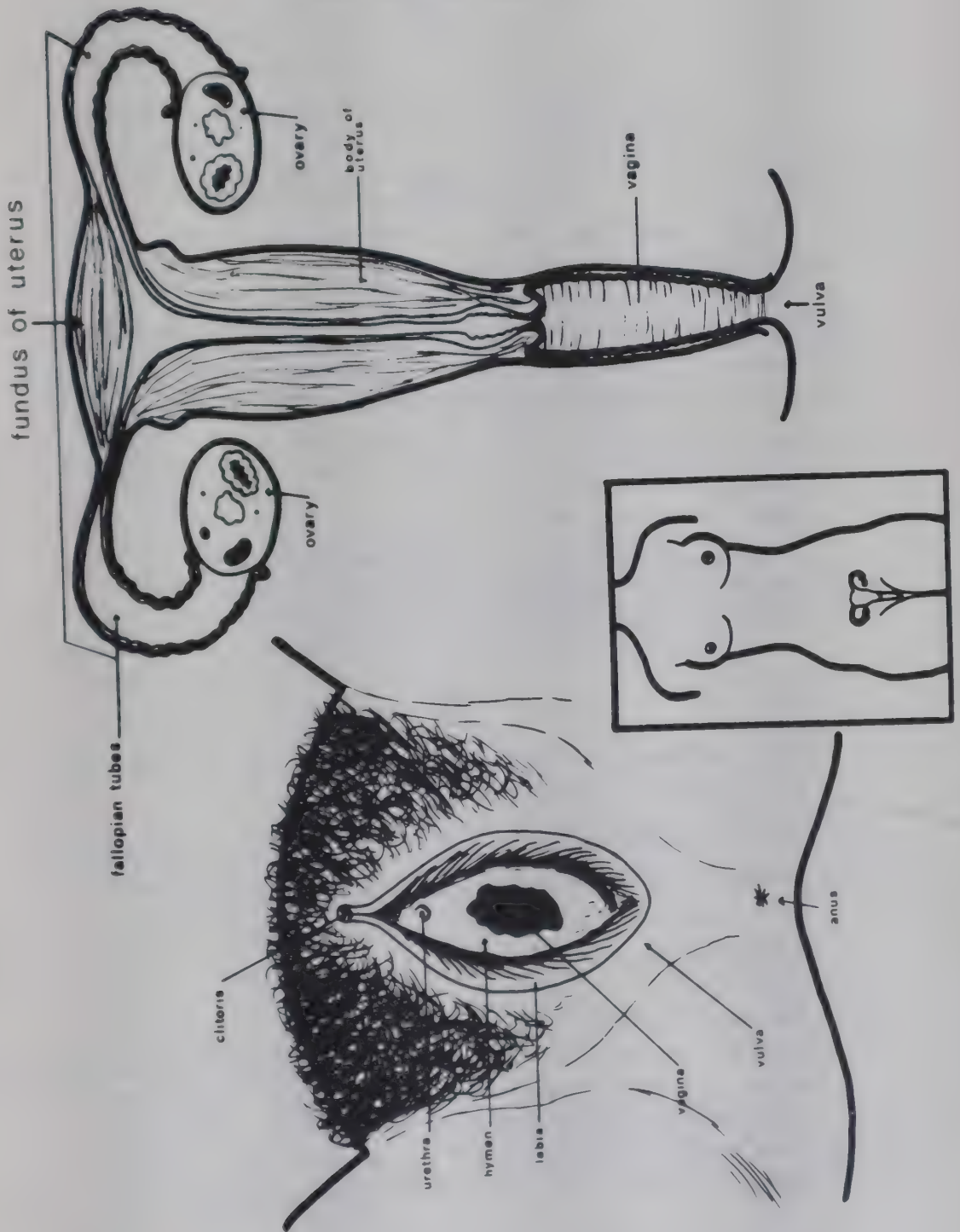
## DIAGRAM OF THE URINARY SYSTEM



## GENITAL ORGANS (male)



## GENITAL ORGANS (female)





# INDEX / GLOSSARY

with  
explanation of key words

## A

- Abcess: lump of pus - 204  
Abdominal: of the belly - 169, 237  
Abortion: interruption of a pregnancy - 50  
Accidents: burns - 94, wounds - 102, fractures - 112, bites - 118  
Afterbirth (placenta): piece of flesh in the womb to which the cord is attached and which comes out of a woman  $\frac{1}{2}$  hour after she has had a baby - 50, 57, 58  
After the delivery: - 59  
Ankle: see drawing of body - 257  
Anus: the hole in the bottom - 240, 241  
Aspirin: medicine taken to ease pain and fever - 237  
Atropine: medicine injected to ease abdominal pains - 237  
Aureomycin: medicine used against infections - 237

## B

- Baby: child which is going to be born or which has just been born  
Baby's bottle: bottle from which a baby drinks  
Bandage: piece of clean cloth used to wrap round a limb or a part of it that is hurt - 247 to 254  
Belladonna: medicine used to ease pains in the belly - 237  
Belly: abdomen. Belly pains: - 48, 77, 169, 184, 237  
Benzyl Benzoate: - 237  
Bites: - 118  
Bleeding: - 39, 62, 71, 73, 74, 102 to 111, 192  
Blister: bubble on skin filled with waterlike liquid - 96 to 98, 153 to 154  
Boiled: said of water which has been kept at 100°  
Bowel movement: passing stools  
Breast feeding: - 79 to 83  
Breast pain: - 65  
Burns: - 94  
Buttocks: the flesh on the bottom - 55. 242

## C

- Chest: see drawing of body - 257
- Childbirth: birth of a baby - 49 to 58
- Chloroquine: medicine used against infections, fevers - 237
- Chlorpromazine: medicine used in mental diseases - 237
- Cholera: communicable disease with diarrhoea, vomiting and dehydration which occurs in large epidemics - 20
- Coil: kind of contraceptive - 71 to 73
- Communicable diseases: diseases which can be transmitted from one person to another. Example: measles, tuberculosis - 10 to 37
- Community development: social activity in which members of a community meet to discuss their common needs, suggest answers and implement action - 220 to 234
- Compresses: pieces of clean cloth used for dressing a wound - 106 to 107
- Condom: kind of contraceptive - 70
- Conjunctiva: that part of the eye that is normally white
- Constipation: - 62
- Consultation: visit by a patient
- Contraceptives: means of avoiding becoming pregnant - 69 to 73
- Convulsions: violent and involuntary movements - 14 to 15, 48, 211 to 214
- Cord: cord which joins a baby to its mother - 55, 56, 57
- Cough: - 25 to 31, 34, 36
- Cure: the end of an illness

## D

- Defecate: to pass stools (see stool), have a bowel movement - 131 to 136
- Dehydration: when someone or something has lost a lot of water and needs water - 17, 20
- Delivery: - 49 to 58
- Diarrhoea: when someone has at least three liquid stools a day - 16 to 24, 34, 172
- Discharge: yellowish liquid (from the nose, the ear, a woman's genitals) - 29, 30, 75, 217 to 219
- Diseases of women: - 74 to 78
- to Disinfect: to clean so as to protect against infection
- to Dress: put a dressing on a wound, or limb - 98, 100, 104, 107 to 108
- Dressing: piece of clean cloth used to cover a wound or a burn - 98, 100, 104, 107 to 108



## E

- Enema: injection of liquid into the anus
- Epidemic: when several people suddenly catch the same disease - 32 to 37
- Ergotamine: medicine used in case of bleeding after delivery or miscarriage - 238
- to Evacuate a sick person: to send, or refer, a sick person to hospital or a health centre
- Excreta: stools (see stool)
- Excreta disposal: - 131 to 136
- Eyelid: the pieces of skin above and below the eye that partly cover it  
- 161 to 163
- Eye diseases: - 158 to 164

## F

- Family welfare: - 68 to 73
- Fertilizer: substance or product that makes corn or vegetables grow better - 223
- Feverish: said of a patient who is not well and whose temperature is over 37<sup>0</sup>5. Feverishness: - 11 to 15
- Flushes, hot flushes: - 77
- Fodder: grass, straw, hay
- Foodstuffs: a food, something that people eat - 220 to 227
- Forceps: instrument for holding something
- Fore-arm: see drawing of body - 257
- Fracture: broken bone - 112 to 117

## G

- Genital: of the sex organs
- Genitals: sex organs
- Gentian violet: liquid to put on skin for cleaning wounds - 238
- Germs: very small living animals which attack the human body. They cannot be seen without a powerful glass - 10, 13, 81
- Growth chart: - 85, 86

## H

Handicapped person: a person who is not normal or who cannot use his hands or his legs in a normal way

Headaches: - 48, 165 to 168

Hygiene: cleanliness. Good healthy habits

## I

Incision: to make an incision: to cut, to open

Infection: when a germ enters the body or the skin and develops. It may produce feverishness, pain, diarrhoea, coughing, redness, pus

Injection: liquid put into the buttock or the arm with a needle and syringe - 242 to 246

Intestinal worms: - 180 to 186

Iodine tincture: liquid to put on skin for cleaning wounds - 238

Iron sulfate: medicine used against weakness after a lot of bleeding - 239

## J

Joint: the part joining two bones, such as the knee or the ankle - 174 to 179

## L

Latrine: hole into which stools are dropped - 131 to 136, 185

Learning objective: what a PHW should know after he has studied a problem and which he did not know before

Lumps: - 200 to 206

## M

Malnutrition: - 88 to 93

Maternal care: - 38 to 78

Medicines: drugs - 236 to 239

Meprazine: medicine taken to get rid of flat worms - 238

Mental diseases: - 207 to 214

Miscarriage: delivery of a dead baby in the early months of pregnancy  
- 50, 58, 238

Mortar: mixture of sand, cement and water

Mouth: diseases of the mouth - 193 to 199

Mucus: thick liquid, slime - 22

## N

Nasal: of the nose  
Navel: see drawing of body - 257  
Nutrition: - 79 to 93

## O

Objective: see learning objective  
Ocular: of the eye  
Ointment: pasted medicine to apply on skin (or in some cases on eyes)  
- 162, 163, 237  
Ophthalmic: of the eye  
Oxytocine: medicine injected to stop bleeding quickly after delivery or  
miscarriage - 238

## P

Pains in the joints: - 174 to 179  
Pap: semi-liquid food for infants, mash - 83  
Pat: tap lightly - 101  
Penicillin: medicine used against infections - 238  
Periods: blood which a woman loses from below (vagina) every month - 38, 74,  
75, 77, 173  
Phenobarbital: medicine used to calm excited persons, to sleep - 238  
Phlegm - foul-smelling phlegm: that which is coughed up or spat out of  
the mouth - 25, 26  
Pill: round piece of medicine. Special ones are used as contraceptives  
Piperazine: medicine taken against round or small worms - 239  
Placenta: see Afterbirth - 50, 57, 58  
Postnatal care: - 59 to 67  
Pregnancy: when a woman is expecting a baby - 38 to 48  
Pregnant woman: woman who is expecting a baby - 38  
Procaine Penicillin: a kind of penicillin. See Penicillin - 238  
Purgative: medicine taken to make it easier to pass stools  
Pulse: heart beats felt at an artery, usually at the wrist - 20, 225  
Pus: yellowish liquid that comes out of an infected wound - 161, 203, 204

## R

Red spots: - 29, 30, 36, 153, 154  
Refer: send to the nearest hospital or health centre  
Refuse: rubbish, dirt or wastes that are thrown away  
Respiratory disease: - 25 to 31  
Rubbish: refuse, dirt or wastes that are thrown away  
Runny nose: 25 to 31

## S

Scabs: small piece of hard dry skin - 153 to 157  
Sheath: a cover used as contraceptive - 71  
Skin disease: - 150 to 157  
Skinfold: crease in the skin - 19, 20  
Spitting: - 25 to 31  
Splint: piece of wood used to support a broken leg or arm - 115, 116  
Spots: see red spots  
Sticking plaster: piece of clean cloth which sticks and is used to hold dressings and close a wound - 106, 108, 110  
Stiff: rigid, not flexible. Stiff neck - 167  
Stool: what the body passes out through the anus, feces  
Stretcher: bed carried by two people in order to evacuate a sick person - 230  
Sulfadiazine: medicine taken against infections - 239  
Sunken eyes: the eyes fall back into the skull (= sign of dehydration) - 19 to 20  
Supervisor: person who comes at regular intervals to give you advice and to whom you are responsible  
to Swallow: to pass, to absorb down the throat  
Swelling: enlargement of a limb or part of a limb. May also be a small bump or lump under the skin - 46, 47, 67, 71, 90, 93, 168, 177, 189, 190  
Syringe: instrument for giving injections - 246

## T

Tablet: flat piece of medicine - 236  
Techniques: - 240  
Teeth - Diseases of teeth: - 193 to 199  
Temperature: of the body. Normal =  $37^{\circ}$ . Above  $37^{\circ}5$  = fever. Above  $39^{\circ}$  = high temperature - 240  
Tetracycline: medicine used against infections - 239  
Thigh: see drawing of body - 257  
Tiredness: - 78, 187, 206  
Transport and communication development: - 228 to 234

## U

to Urinate: to pass water

Uterus: see womb

## V

Vaccination: a means to protect the body and fight germs which may enter it - 10

Vagina ): a female's genitals  
Vulva ):

Vegetable oil: oil which comes from plants

Venereal diseases: - 215 to 219

Vomiting: - 15, 31, 33, 36, 39, 43, 47, 91, 170, 171, 184

## W

Waste disposal: - 137 to 143

Water supply: - 124 to 130

Weakness: - 78, 106, 187 to 192

Weekly report: information given every week

Welfare: well-being

Womb: pouch in which a baby grows inside his mother - 38

Worms: parasites (small animals) living in the belly or under the skin  
- 180 to 186

Wound: where the skin is torn or broken; the flesh may or may not be deeply cut - 102 to 111

Wrist: see drawing of the body - 257.

PART II



Guidelines  
for  
training PHWs





# Introduction

*Learners and teachers are both engaged in an exciting experience. To begin with let us not think of the "teacher" as the person who knows everything, and the "learner" who knows little or nothing. We all "know" something which can be shared, and in this way we learn from each other. There are methods and principles which can make learning stimulating, interesting and useful. This Part II discusses and outlines some of these principles and methods. It does not discuss WHAT should be taught but HOW the teaching/learning can best be done. It is mainly intended to help instructors, supervisors and primary health workers in using and teaching the content of Part I of this document. It may also be used as reference material to prepare local manuals adapted to local needs. However, we need to stress that in the number of problems selected to be taught from Part I their order may differ from one situation to the other. In one country, it may be necessary and possible to teach all the problems and these may be the very ones mentioned in Part I. In another country students may only be able to learn a few problems at a time, or only a few priority problems, some of them mentioned in Part I, others not. These are the ones which are chosen to be taught. In short, the length of the programme will differ from one situation to another and students may learn to deal with a few problems, then work in the community for a while, then be recalled to learn how to deal with additional problems, or they may learn how to deal with many problems with no interruption. Learning does not start at a fixed time and end at another fixed time - it is a continuous process throughout life.*

*This Part II is organized in four chapters. It starts by discussing the kinds of knowledge and information that are basic in the development of any training programme and it goes on to describe some methods and techniques for making learning/teaching more effective, then indicates how to assess whether the purposes of training have been achieved. It ends with examples of how to organize a learning module starting from the statement of a problem, and going on to what the student will be able to do and whether he has learned what he is expected to do.*

# 1.

## Getting to know each other

Before we begin to discuss the training we must first create a harmonious atmosphere in which to work. We need to ask ourselves: Who are the students? Where have they come from? What have they been doing in their family, their community? Who is the teacher? Where has he come from? What is his background? Becoming acquainted with one another is very important for successful learning. The teacher can encourage this by presenting him or herself, his experience, where he or she comes from, etc. The students can be invited to do the same. The chairs or branches could be arranged in a circle so that it is less formal and people can talk with each other, instead of looking at the teacher only.

Entrance requirements may already exist which describe the minimum qualifications students need to have in order to join the programme (e.g. primary school - read and write the local language - age, etc.). However, encouraging students to talk about their own background is an additional way of finding out more about them. At the same time students share and compare their experiences with each other, including the teacher, and voice their expectations of the programme. This period of adjustment which we will call "the orientation period" may last for a few days or even more. Obviously the kind of background from which a student comes, his role in the family, community, and his general approach and attitude to learning will influence to a great extent the length of the training, the language used and so forth.

Summary: Learning process

Learning process	
Method (How)	Content (What)
- Getting to know each other	- Working Guide for Primary Health Workers: Introduction, page The Primary Health Worker profile

## 2.

# Suggested techniques

for

making learning /teaching

useful, realistic and effective

### 1. GETTING TO KNOW THE COMMUNITY

A large part of our education is received by learning from our surroundings - or, the place where we live, our family and society. We take directly or indirectly from our own experience or from what others have done. We learn to compare what we already know to what we learn during a training course. Before going into specific subject matter, it is important to understand how a community works. What could be better than to discuss the community from which the students come? Talking about the community is how the discussion starts. How does the community work? Who are its leaders? Why are these people leaders? Who has influence? Why? What makes a family - what are its problems and needs? What are the traditions and customs? Who takes care of people when they are sick? How do families work together for each other or for the community? Who in the family decides what a family should do? Who decides what a community should do? How can these people help the PHW? - what must the PHW do to obtain their help? What would happen if he does not get their help?

In order to really understand the community in a realistic way, we need to work in the community. Here are some suggestions: students can be divided into small groups (3 - 5); each group can be given the task of finding out and showing with pictures and diagrams what they know of the community: (located in the training zone) a group may be responsible for drawing a map showing main roads and tracks and the main areas where



people live, and where are the market, school, community house, etc. Another group could be responsible for finding out how many people live in a given area. (They area may be made up of many villages which together make up a zone) also how many children are there aged 0 - 5. Practice in finding out the number of people and children is very important, since it will help us later on to do the same in the area where we will work. We will also be able to use the same method to find out, if asked to do so, the number of women aged 15 - 45, as well as keeping to count of the number of children born. Besides knowing how many people there are, we must find out other things. We need to ask questions about:

- values, beliefs and customs of the community
- family system
- child-bearing practices
- attitudes towards health, knowledge about sickness, usual behaviour
- resources:
  - how people make money or get food
  - agriculture, crafts, services, animal husbandry, etc.
  - water/sanitation
  - roads/telephones/radios/electricity/transportation
- political structure
- main faith, religion
- population: number of people, number of children 0 - 5.

For each task a clear statement must be written of what the group has to do and the time allowed to do it. The results of each group are shared with the entire group so that a complete picture of the community is obtained. Finding out the answers to these questions will lead us to understand the community much better.

(a) Finding out the problems of the community

Firstly, what is a problem? A problem is a situation or condition which is upsetting. It may occur in an individual, a family or in the community. Something must be done to solve a problem or make it less serious.

Frequently, we find that we know or can feel that something is wrong, but do not know why! On the other hand, we may see a problem which is not considered to be a problem by the people concerned. One can be sure that if there is something which is upsetting to a person or a community, and if one listens carefully to what people



say, and to the needs they express, one soon will know what they are concerned about. We need to remind ourselves from time to time that when we meet with people our main responsibility is to allow them to speak for themselves; not to come to the community with ideas and solutions already in our minds. Instead we can point out possible or alternative actions to improve the situation. This learning process is a continuing one and the more practical experience we get the better we can help the communities we serve - thus we can start developing these skills now. A few suggestions follow on how to go about it.

(b) Approaching the Community

1. The teacher contacts the village authorities and, at their convenience, organizes with them a meeting with the student group. It may be more convenient for the village representatives to come to the Training Centre and discuss community organization with the students. Following this, agreement to visit all families should be obtained so that the group gets first hand experience with the people in their homes.

2. Divide the class into small groups and send them to the community. Let them come back with a list of problems which they feel are most important, and which the community has said is important.

3. Each group selects an area to visit which might be made up of 40 families. Not more than two people should visit a household at any one time. The group will then divide again into pairs and plan how many families each pair will visit in order to cover the whole area.

4. Home visits may appear like an intrusion and indiscretion unless it is done properly, that is: each pair introduces themselves to the family, they explain who they are and why they are visiting, for example, to join in helping the people help themselves in whatever way they can. They should observe, ask, look for and remember the following:

- where does the family come from? and why it came to this area?
- how large is the family? (nuclear or extended?)
- how many children? and what do they do?
- have any children died? why? or what was the cause?
- what does the head of the family do to get money? or food? or seeds? etc.
- what does the family eat? when do they eat? who prepares food?

- had anyone in the family been sick during the past week - month? what did they do? where did they go?
- what is the general condition of the house?
- how big is the house?
- how many people share a room?
- are there windows/ventilation?
- do they have water and how do they store it?
- where do they get their water from? how far is it?
- is the food protected from flies, rats, etc.?
- how do they get rid of rubbish?
- is there a latrine? is it individual or collective? how is it kept?  
if not, where do they go to the toilet?

This first community visit may take some time to do and finish; working hours of the people, distance and transport all have to be thought about, but all other learning will be linked to the situation in the family and community. So, it is worth while to spend enough time to do this at the beginning of the training. It will also help to build up a good relationship between the students/teachers and the communities they will serve. The student/teacher group will have a chance to discuss problems which are found and solutions which are suggested.

(c) Ranking priorities

Since we cannot solve all the problems of any community we have to determine which ones are the most important. Thus it is useful to list the problems according to how important the community sees the different problems.

One way of determining how important the problems are is to know the number of people who say something about the same problem. Therefore when students return from the community the number of times a problem has been stated is counted. This information can be put on the blackboard and one can soon see which top three or four problems need immediate attention. For example:-

No water supply in the village  
(this may be said in many ways  
e.g. "a long way to fetch water")

50 families

No nearby, or open at a good time,  
health care clinic  
(e.g. expressed as "we go to the hospital  
which is far away" or "the service is  
closed at 14.00 hrs")

40 families

Not enough food  
(e.g. expressed as "poor harvest,  
drought", etc.)

25 families

The most important problems listed are called priority concerns of the community.

Let us suppose that a large number of people in the community agree that at this moment five problems are most important, and they have to do with: (i) problems related to emergency and curative care; (ii) problems related to water and sanitation; (iii) problems related to food; (iv) problems related to work and amount of money to buy things which are needed; (v) problems related to communications (no road, no radios, no bus, etc.).

These five problems are only an example of what a community might consider important. Other communities may have different problems. Most of them will probably relate to food, housing, health (i.e. the community might say sickness), transportation to markets or towns and education (schooling for children).

Coming back to our five problems it is obvious that it is impossible for one person to do everything. This leads the group to ask the following question: what do we think we could do that would be most helpful to the community and what are the things we think we will be able to do at the end of the training period? We should remind ourselves that we must always compare what we learn and what we do with the real situation; that is, where the problem is, either in the home, the community. This is important because people must understand whatever we do and say. What we do and say must be practical for the people. For example, we cannot tell a mother to give her child medicine at 8.00 a.m., 12.00, and 6.00 p.m., when she does not have a watch or a clock!! but we can tell her by the sun!

(d) Deciding together what is to be done

Based upon the agreed upon role of the Primary Health Worker (see pages 3 and 5, 329 and 330), students and teachers should discuss together what they think they will be able to do in and with the community. It would be useful for the group to choose one person to write down what the different ideas are and what the general agreement is.

For example, students might say that:

- we will be able to give medicine to the sick
- we will be able to put a dressing on a wound
- we will be able to deliver a baby

- we will be able to talk with the people about health
- we will be able to help children not to get sick.

All these tasks which we have listed and we would like to do, are tasks that we will learn how to do. For others we will have to learn to seek the help of other people working in the community. If students list unrealistic tasks, the teacher must explain why this would not be possible.

## 2. LEARNING TO WORK WITH OTHERS

There is always something a person can do for himself (or a mother can do for her child) to alleviate the problem. This is discussed between the PHW and the person concerned who may be taught to do a few things. The PHW on the other hand can only do so much and depending on how serious the problem is, he should seek the help of other people who know more about what to do about it. If it has to do with illness it may be the nurse or medical assistant; if it is concerned with drought, or a poor harvest it may be the village council, a community development officer, an agricultural officer; if it is a dirty well the PHW may get the help of the health inspector or sanitarian. This way of working with others, often called "teamwork", is necessary because the various people we mentioned such as the sanitarian, the agricultural officer and others, know something different from what we know and we can share this together since we are working for the same goal. In order to do our share, we must understand the health problems and learn certain skills so that we can do what is needed.

### Summary: Learning about the community

Learning process	
Method (How)	Content (What)
<ul style="list-style-type: none"><li>- Approaching the community</li><li>- Finding out the problems of the community</li><li>- Ranking priorities</li></ul>	<ul style="list-style-type: none"><li>- Getting to know the community</li><li>- Priority concerns of the community, deciding together what is to be done (see role of the PHW, pages 3 and 5, 329 and 330)</li></ul>



### 3. SETTING OUT WHAT WE NEED TO LEARN AND HOW TO LEARN IT

Let us look at the five problems discussed on page 280 which can be related to problems Nos 4, 6, 5, 3, 7 in Part I. We will need to know:

- (i) What does the person feel? (pain, worry, discomfort) and what does he show? (red spots on the face, swollen legs, etc.);
- (ii) We need to ask ourselves what has caused this problem or what started it. Usually there is more than one cause. For example: a child is very hot and is coughing. Among the causes:- a germ goes into his chest and causes him to cough; because he is very thin and does not have enough to eat and drink he becomes more ill;
- (iii) From the cause we must ask what could have prevented the problem? or what could people have done so that the problem might not have started or that it might have been less bad;
- (iv) What do people do for this problem? or, what are the usual remedies? is this enough or what else could we do?

There are some things that people do to cure the problem. There are other things that people can do to make sure the problem is less likely to start (this is called prevention; or we say that people can prevent a problem).

When we know this information, we can talk about what is a normal condition. For example, a person who is never sick, eats well and enough of the right kind of food, is strong, can work and can learn well, is said to be in normal health. The child who has a cough is not in his normal condition; his normal condition is when he is not coughing; it is also when he is eating well and when his height and weight are right for his age.

After we discuss the normal condition, we can talk about how the normal condition can be kept up, and what are the first signs that something is wrong; what can be done to prevent it from becoming more serious; what can be done if more care is needed. To do this we must break down the problem into small parts.

#### (a) Breaking down the problem into small parts

Each problem can be broken down into several parts which will make it easier for us to know what to do step by step, why to do it and when to do it. For example, if we take Problem 1.3 in Part I: "Diarrhoea", we will have to know the following:-

1. whether it is diarrhoea
2. what other signs and symptoms exist
3. how serious it is
4. what treatment to give
5. what advice to give
6. should we refer the problem.

In order to know this the PHW should be able to:

- (1) Ask the person, or the mother of a child, how many times did you pass stools? what were they like? did they cause you pain? how long have you had loose stools? what did you eat for your last meal? what did you drink?
- (2) Look at the patient to see if his eyes are sunken - examine the patient to see if his mouth is dry and tongue dry and red - upon pinching the skin the crease remains - the pulse is difficult to count
- (3) Do the following procedures:  
Take the temperature  
Examine stools for blood and mucous
- (4) Give the treatment for the condition as described in Problem 1.3
- (5) Give advice and directions as needed.

In order to do all the above we have to learn to be able to:

1. ask questions and listen
2. write down the answers briefly
3. examine a person
4. take the temperature and pulse
5. examine stools
6. prepare liquid solution if ready made packages are not available
7. decide which treatment to give and when to refer
8. teach a person to prepare the liquid solution for himself or child and when and how to take it
9. advise on prevention of diarrhoea - need for personal hygiene, for food hygiene (flies, water, etc.).

The sentences numbered 1 - 9 are what are called learning objectives or behavioural objectives. This only means what you will be able to do at the end of the learning process.



Each step in the learning experience may take time to learn. For example, it may take a few hours to learn how to ask questions and listen to answers, and ten or more hours to be able to do this well. It may take several hours to learn how to take the pulse accurately. The group can practise this task on each other. We can say the same for taking the temperature. It is important to take the necessary time to learn well.

Problems are linked together. Once these are learned they may be used in many different situations. For example: you will need to ask questions of a person who coughs - you will need to examine him, take his temperature and pulse, give him treatment and advice. Of he is not complaining of diarrhoea you will know that you do not have to examine the stools or prepare dehydration fluid but you may be required to do other tasks. Every problem can be broken down, and by doing so the learning process becomes easier.

By following this method we will find that some of the procedures to deal with one problem, may be used to solve another problem: therefore, for the purposes of learning, we do not necessarily have to follow the order in which problems are presented in Part I. We may choose to learn first a particular problem because it is a priority concern of the community. This we have already discussed when we were finding out problems of the community and ranking them according to priority.

(b) Examples in teaching and learning the different parts of a problem

Once we have broken down a problem, we can use different methods for learning about the different parts of the problem. Some examples are:

(a) group method: some things are better learned in groups. When we talked about approaching the community, we described how to use a small group for interviewing. Before small groups do a task, clear instructions should be understood by everyone. After small groups have done the task, it is helpful for everyone to meet together in a large group to talk about what the groups have done to find out if, what and how it could be done better.

(b) do it yourself methods: sometimes, we need to seek out information by ourselves, let us say by reading individually, or going to ask someone questions outside of regular organized learning time; or, by practising a skill by yourself, after you have learned with others, or after it has been demonstrated by someone else.

(c) demonstration method: some things are better learned by showing the whole group or small groups how it is done and then having one or two people repeat it. Everyone should have a chance to practise individually. This method is good when learning a manual skill, for example, giving an injection or delivering a baby.

(d) storytelling: another method is to make up a story using three or four ideas. This is a good way of making sure that what is learned makes sense to people in the real situation.

(e) playacting: the group can make up a play or drama about three or four ideas, just as with storytelling. In countries where puppets are traditional this is also a good method.

(f) use of proverbs, jokes, songs and dances: these methods can also help to explain ideas. They can use the language of the people who are learning.

(g) use of pictures, posters, diagrams: some things are learned better when people can see rather than just hear about something. The pictures, posters, or diagrams are called visual aids, and using them is a helpful method for learning.

(h) questioning: we can ask the group questions or ask them to ask questions after other methods have been used, to make sure that everyone has understood and is clear about what has been learned.

At this point we will talk about a few suggestions for making the learning/teaching process more active and interesting. These suggestions can be used in many different situations; they can be used by the teacher with future PHWs or the PHW can use some of them with the community.

(c) Enjoying learning

A wise man has said that in life we need to want to do what we have to do - and we have to want to do what people need us to do in our work and daily life. The meaning of this is a very simple one: we can enjoy learning and working if we have our mind and heart set to do so.

How can we develop this feeling - in ourselves and in others? here are some suggestions:

- we have already some reason for wanting to learn because we came to this training programme. Many things may have helped us, for example our elders may have encouraged us to join the programme. Since we have come, the visits to the community and talking about the problems have made us realize the kind of help we can give to our neighbours and the community. When we see that what we learn will be of use to us in our work, we will enjoy or look forward to learning. The role of the teacher here is very important - he should know that learning cannot be forced! "We can drive a donkey to a pond but we cannot force him to drink". Students may

learn in different ways and at different rates, therefore, avoid having a fixed schedule, a fixed time and a fixed experience for all - the teacher should also know that students are more likely to learn better when they are motivated, satisfied, actively participating in their learning in situations similar to those where they will be working later on. Therefore his task will be of encouraging students to learn by organizing the visit to the community, by talking about what the students will do in the future and what problem they might have. Equally important is the teacher's attitude - showing interest and enthusiasm will help the students to be interested and enthusiastic also and they may copy this attitude. The teacher who enjoys teaching usually has students who not only enjoy learning but also learn better and remember what they have learned - this is partly because one teaches what one is, and not only what one knows.

- we must make sure that what we say, what we do and what we think makes sense in the situation in which we live. This point has already been said but must always be kept in mind. One way to do this is to ask questions, this will stimulate discussion and encourage students to keep their own experience in mind. Another way of making sure that the real situation is always kept in mind is to use anecdotes, folklore sayings and jokes used locally: in one country, people say that a person who thinks is very important and tries to do things which are not always liked by the community has "a head too big for his hat" or in another country they say this person is "trying to defecate like an elephant"!! Introducing a touch of humour into discussions makes the learning sessions more lively.

- we can encourage students to ask questions about what they have not understood; and to show what they have understood by specific examples. Those areas which are not understood must be gone over immediately until it is clear to everybody. This will lead to a feeling of achievement. Everyone will feel proud that everything has been understood. There is nothing more frustrating than to be in a situation where one does not understand and is not helped to understand, or it is upsetting when one does not know how to do something and nobody helps us to be able to do it. In short once we understand or know how to perform a task it is important to show in some way what we have understood and make sure that we have understood the subject correctly.

- reward is one of the best ways of helping us to do what we have to do. When we feel that what we do is useful and this is recognized and appreciated by others, it makes us feel good and proud. Students need to be encouraged. We can give a word of praise for their efforts, for creative ideas, initiative and hard work.

Punishment makes people upset. If we make fun of someone or are cross with him in front of other people, the student may not enjoy learning. We may have to, sometimes, fail a student in an examination. But we should always encourage him afterwards so the student does not later learn only out of fear of being punished. A common saying is "if you are bitten by a snake, you become afraid of a rope".

The teacher helps to reward by making students realize that their efforts are for the well being and development of the community. The teacher could also periodically invite leaders from the community to talk with the students so that they hear what the community has to say.

Summary: Setting out what we need to learn

Learning process	
Method (How)	Content (What)
<ul style="list-style-type: none"><li>- Breaking down the problem into small parts</li><li>- Using different <u>methods</u>:<ul style="list-style-type: none"><li>- group</li><li>- do it yourself</li><li>- demonstration</li><li>- storytelling</li><li>- playacting</li><li>- jokes, songs, dances, proverbs</li><li>- visual aids</li><li>- questioning</li></ul></li><li>- Enjoying learning</li></ul>	<ul style="list-style-type: none"><li>- Problems Nos 4, 6, 5, 3, 7 in Part I</li><li>- Enjoying learning</li></ul>



(d) Examples of how to use different learning/teaching methods

Before using methods, we must be careful to select the best method or methods. Selection of teaching methods will depend upon the problem to be solved (see learning objectives pages 322 and 323) and the existing situation. Some problems are better handled by group method. For example, community development problems where group decision and action are necessary. Other problems are better to teach individually, such as the development of individual skills (for example, manual skills). Sometimes, it is better to use a few methods for learning about one problem or a group of problems: this is called a combination of methods.

The students may meet as a whole group, e.g. during a film, or a demonstration or they may split into small groups. Each group can be given a specific task or problem which can be shared by the whole group.

There are certain sequences which begin from the selection of the learning/teaching method and proceed to the actual learning experience itself. Below we have outlined an illustration of this sequence in step form.

ILLUSTRATION IN STEP FORM

A word of caution should be mentioned although steps are being outlined to facilitate planning for learning/teaching, however these are flexible and the order of steps may be different according to the different learning experiences.

STEP I: Selecting the best method

Instead of using all methods to illustrate what steps to take, we will take the "group method" as an example. This may be useful when the problem under discussion requires:-

- the shared views of all concerned to be shared
- the shared experience of all concerned to be shared
- the development of communication skills such as:
  - listening carefully to what others are saying
  - speaking clearly
  - stimulating others to talk
  - stimulating others to want to do something (take action)
  - developing a feeling of confidence
  - sharing decision making
  - sharing action.

STEP II: Linking problems together: Grouping most appropriate problems for particular method selected.

If we look at Part I certain problems can best be taught by talking about them together:-

- how to have clean water
- how to find new kinds of food
- how to eliminate rubbish (garbage)
- how to protect foodstuffs
- how to deal with epidemics
- how to develop means of transport and communication
- how to organize the community for vaccination.

If we look at these problems together, we can see that they all demand community participation. This is because it is every day activities of people and the conditions of the community that cause, or lead to, problems. Actions have to be taken by the community to solve these problems and to prevent these problems. In addition, other health problems can be divided into two groups:

1. there are problems which are caused because some part of the body is not working well. This is just like a part of a bicycle or truck which does not work because it has broken down or some part is missing.
2. there are other problems which are caused by germs entering the body. The germ then lives and grows there. In order for them to survive they destroy some tissues. They can act like a poison in our bodies.

STEP III: Preparing for learning activities related to the problem

In preparing for learning and in selecting the method, it is important that we understand the problem beforehand. All information which has to do with the problem should be put together. All available material and/or equipment needed to make the discussion and learning easier should be put together. Different methods can be used for each problem such as group work, role playing, etc.

As an example of group learning - or small group method - let us turn to Problem 5.1 in Part I concerning "Water Supply". People in the community may have said that the problem is having to travel long distances to fetch water or that they have only limited source of water supply for all purposes - that is: drinking, washing, irrigation.



STEP IV: Preparation for the class

Prior to the class

Review Problem 5.1 "Water Supply" in Part I. Study the diagrams - note why some show a bad water supply, others a better one and others the best water supply. Write down the different steps in learning this problem. Decide on methods you will use for each step.

STEP V: Breaking down the problem

What shall we know and be able to do at the end of the learning period. At the end of his learning period, one should be able to:

1. Find the characteristics of the place where the villagers go to get water for drinking and for washing themselves
2. Tell in what cases water from a pond or river can be good for drinking
3. Recognize whether water from a spring or well is sufficiently protected to be good for drinking
4. Explain to the village authorities that diseases are caused by dirty water and tell them how the villagers can get clean water
5. Explain to the village authorities how the people can get clean water from a spring or a well
6. Explain to the villagers what places in the river would be used for drawing drinking water, for bathing and for watering livestock (making sure that the water is not contaminated by the village higher up).

Let us say that you have decided to use the small group method and use the community for learning and teaching. Therefore groups of three or four students will work together and visit the village to collect the necessary information.

STEP VI: The class begins

Ask the whole group to look at Problem 5.1 in Part I, to read carefully what is written and to study the diagrams.

Introduction

Ask the group what are all the things they could possibly know and be able to do when the classes on "How to have a clean water supply" are completed. Invite a student to write on the blackboard what the group states. You may at this point add a few steps which you have previously written down, which the students have missed out, in order to have all the steps completed. Make quite sure everyone is offered a chance to ask questions if they do not understand.

Using the Working Guide, Part I, show what you have seen in the village(s) and then direct your attention to the diagrams in the Working Guide. Point out which type of water exists in the village. Ask yourself if there is a well in the village.

Discuss within the group where it is located, how the people get the water, i.e. with pails, with goat skin bags, with earthenware jugs, with a pump, etc.

Write the different answers on the blackboard. This would show the various types (if this is the case) of water sources and methods of collecting the water.

Then we move on to ask what is this water used for. Examples of answers might be: for drinking purposes (people and animals); to irrigate the fields; to bathe in; to wash and feed the animals. We may already know from before that this water is a place where people urinate and defecate. In this case, try to draw out from the group that the sites of water are also used as places for human excretion. Then go on to say that water can be a cause of illness because it has been used for so many purposes and therefore it is not safe (we say that the water is contaminated). At this point we can refer to Problem 1.3 in the Working Guide "Diarrhoea" and say how contaminated water may cause diarrhoea.

Discuss methods of how to make water safe for drinking purposes. Refer to Problem 5.1, water from the river, point 2; water from spring, point 3; water from a well, point 4.

#### STEP VII: Assignment of tasks to students

1. Have student visit, in small groups of three, water sources in a village and describe and make suggestions for improving it. The teacher may assist them by asking questions, such as where is the water located? how is water collected? what steps are needed to make water safer for drinking?
2. Have students draw simple posters showing the situation before and after, according to their suggestions.

#### STEP VIII: Discussions and conclusions

If students recommend that certain community actions are necessary, such as covering wells, or suggesting that a well should be constructed (the old one being badly constructed or placed), let them then say how they would contact the community leaders, how you would lead a community to take action (see learning about the community). What outside assistance (health inspector or sanitarian) would you need?

If the group do not recommend the above, make sure that this topic is introduced by asking careful questions. Community contact and action would include: who to see - what to say - how to say it - who to contact for further help. For example: should a well be dug? where? by whom? what is needed? who should help? what are the features of a good well? what is a contaminated well? how is the water in a well safe? what is the relationship with latrines?

One group of students could act out or make a play of a conversation between the village authorities and themselves. In this play they would explain what work is needed to protect a spring or well. Another group of students could draw three posters to show three different places where people should draw water for drinking.

The end of this topic would lead us to talk about other problems which are related to water such as "Diarrhoea" and other problems (diseases) which are transmitted when the water is not clean. The water becomes contaminated because people and animals urinate and defecate in the water or along its edges. People who drink or bathe in this dirty water may become sick. One should be able to decide what to teach next when the students have raised questions or problems.

Follow the same steps for similar problems. After the problem of water has been discussed, it would make sense to follow with "where to defecate", see Problem 5.2, and linked with this in the construction of latrines.

Let us just outline key points which we need to remember concerning where to defecate and the building of latrines: why build a latrine? what diseases will be prevented if we have a latrine? how is a latrine constructed? how do we use it and keep it in good order? here again we need to know what is our role, to whom we should turn for further help when the villagers are convinced that they should build latrines. This is how we work with others (e.g. village authorities and sanitarians) and this is very important.

Let us look again at how we can use the essential points in preparing our class and do so in such a way that the PHW can use it during his work with the community.

Read Problem 5.2 of the Working Guide in Part I. Break down the problem into small parts:

1. Review the problem discussed with the village authorities
2. What are the diseases which exist in the village which are caused by people defecating in fields or rivers?

3. How many houses in the village have latrines? how do they look?  
how are they used? are they clean? why did these families decide  
to use latrines? why did others decide not to use latrines?

What do we need to know about the problem?

1. How are diseases spread through muddy water? what happens in the  
body?
2. What are the signs?
3. What can we do to treat them?
4. What can we do to prevent them?
5. How is a latrine constructed? can we get help from sanitation  
services?
6. Who constructed the latrine?
7. What are the characteristics of a good latrine?
8. What is our role?
9. What are the reasons why people do not have latrines?
10. What are the best ways to overcome these reasons?
11. What are the different steps that can be taken by the village people  
which would lead to most families eventually building their own  
latrine?

For us to do the above we may need to:

- visit the village. In this case the teacher must organize a meeting with the  
village authorities
- during the visit, try to find out how many families have latrines. The group  
should outline the information needed (as mentioned above)
- review all the information, after we have learned points 1 - 11; we can then  
prepare a story on how one of the diseases spreads and how the disease could  
be prevented by using the latrine. This story could be used by the PHW  
in the village when trying to persuade people to build latrines and PREVENT  
from becoming ill. The PHW could use information collected from the  
villagers themselves to make the stories used REAL (e.g. reason for wanting  
to build a latrine). (See method how to use storytelling and role-playing)

### STORY TELLING

#### Using story telling

For thousands of years people have used stories to teach and to give examples of  
beliefs, customs, and what they know of life. These stories have been, and continue



to be, transmitted from one generation to another, and have been very important in teaching people how to behave in certain situations. For example, mothers always teach their children how to behave with their elders, what to believe when faced with a problem and what to do. This method of teaching is already in use, and it is very effective. So, we can use it ourselves to transmit ideas and influence people to do what is necessary when faced with a particular problem. We should also remember that there may be traditional story tellers in the village and we should learn to give them facts to use in their story telling and learn from them how to go about telling a story.

If we learn how to prepare a story and tell it to others, then we shall be able to do the same when teaching others. When we listen to stories and find out what these stories mean, we can learn the causes and prevention of disease.

#### Developing a story

We must decide what we are going to talk about. As we develop the story we must imagine that we are in our community. We must write it as we would tell it to the community people. So, we must know:-

- to whom are we going to tell the story?
- what are the two or three most important points that you want the listener to know? you should not include too many ideas, because the listener becomes confused
- the story should not be too long - and we should avoid including too many details.

For example, if we take the Problem of a "Badly fed child" (No. 3.2), the main points might be:

1. the child is too thin because he does not eat enough or the right kind of food
2. the child is thin because he has diarrhoea
3. we can help to cure his sickness
4. we can help prevent his sickness
5. we can explore ways with the mother so that she would be able to give more or better food to her child.

#### Making up the story

Now we begin to make up a story to explain these ideas. Let us illustrate point 2, the child is thin because he has diarrhoea.

Every child with diarrhoea will not be in the same situation and you will need to say different things more strongly according to the situation you find yourself in. You will need to have stories which are slightly different according to such things as the age of the person you are telling it to and perhaps how the disease occurs in the person. The best story will probably be made if you can use carefully as your example the most common way the disease is actually caught for each occasion, or the most common practice or custom which actually results in the person becoming sick. Therefore, one of the things which you need to ask yourself as you put your story together is "what are the things which people do which cause them to get this particular disease or "condition". The first story type could be about a small child who has diarrhoea.

"The story begins when his mother goes to her weekly visit to the market. Before leaving she tells her four children that she has prepared some food for them that she has left on the mat. She tells them that she might be late and to go ahead and eat their food. It is a very hot day and flies which have been walking about on the rubbish heap have now sat on the food. Their feet are sticky and dirty and as they hop over the food they leave tiny things like germs which the children cannot see, but which cause disease.

"The children come to eat their meal. They are very hungry and eat up all the food which is now flavoured with tiny germs. The youngest child, a weak and thin little boy, sticks his fingers in the food and sucks them happily.

"During the night, the little boy awakes and cries. He seems to have a pain in his tummy and he passes a very loose stool. He passes several stools throughout the night and in the morning is very miserable. Because the mother believes that her child will become more sick if he drinks or eats, she does not give him any food or anything to drink. For the next day or two the little boy, already thin and frail, looks sad and develops sunken eyes; his skin is dry and loose and is creased, like paper. In fact the poor little boy looks more like an old man."

#### Talking about the story

At this point you may wish to ask the listeners a question. "what does that story mean? what happened? why? what made the little boy sick? why did his brothers and sisters not become so sick?" You want to be sure that the fact that the little boy was already thin and frail made him too weak to fight the tiny little germs that came into his body as the result of eating the food. The little boy who has lost so much water from his body in the stools, could not replace this since his mother believed



that she should not give him anything to drink. You may wish at this point to continue with this story or to bring in another story which might be that of a well fed child (see pages 79-87) and build a story on the positive aspect of a child who is well fed, who gets diarrhoea but quickly recovers because:-

- (a) he is already healthy - his height and weight are normal for his age and he is therefore strong
- (b) he eats enough of the right kind of food
- (c) his mother has learned from the PHW how to prepare food and drinks and to give them to her child in case of diarrhoea.

You may wish at this point to bring in other facts which the mother may have learned later from the PHW - that is, to always cover the food to protect it from flies and other insects, and to burn or bury the rubbish away from the house. Here one could refer back to the problem of waste disposal (Problem No. 5.3) in the Working Guide and build another story around that.

We can see how one problem is linked to another and how one story can be linked to another. To make sure that the listener has understood the meaning of the story, you can ask questions regarding what actually happened and explain the reason why it happened. You can also ask them to repeat the stories in their own words or make up another story with the same meaning.

#### PLAY-ACTING

You may wish to suggest to them that they could develop a play; different members of the group could play different parts. A brief explanation of the main points to be brought out must be given. The teacher may wish to assist the group in suggesting which plays to give and how the parts (roles) might be acted out. If the class is big, it may be necessary to form small groups and have each one prepare its own play. This assignment could be done in the afternoon and evening or the day before, and given the next day to the whole group.

The preparation of plays must be done after the group has understood the stories well and has been able to tell them in an interesting way with all the necessary facts and steps included.

#### USE OF PROVERBS, JOKES, SONGS AND DANCES

Like story telling, proverbs, jokes, songs and dances are part of every culture and can be effectively used by us to tell a story or convey a message. There may be existing proverbs, jokes, and even songs and dances which tell us about health.

The preparation of new jokes and songs should be given to the group as homework where they are asked to describe parts of a problem and a solution to a problem. The group should select good jokes and songs which everyone likes and they should use them in teaching the community.

Many dances have special meanings for the people even if some of these may have been forgotten. However, the PHW together with members of the community could create dances with symbolic meaning about health and health practices which could be explained at the time of the dance.

Puppet shows may be popular in your area and should be used to act out a play or comedy as this is a very lively way of stimulating interest.

### DEVELOPING MANUAL SKILLS

Up to now we have been discussing problems and how we can learn. We have used a variety of methods in small or large groups. However, we all need to learn to do things by ourselves and we need to feel sure that we use our brain and hands together. Once we have learned the correct movement, the more we practise the better we become. These skills are mainly manual; this means we use our hands in order to do them. What are some of these skills? some examples are: giving an injection, delivering a baby, taking a temperature, putting on splints, improvising a stretcher, making solutions, putting drops in eyes and ears, examining a patient, etc. These are the main skills which we shall use in our daily work.

Each of these may be demonstrated or shown. But we can say we have learned this particular skill only when one of us has demonstrated that we have understood why we are doing this, and how we are able to do it. We must use certain instruments and equipment for each technique and we must become familiar with them so that we can use them smoothly and comfortably and safely.

### Points to remember about demonstration

1. We must make sure that the group is not too large so that EVERYBODY can see what is being done.
2. The students should always sit in a semi-circle, or half-moon.  
This is good for demonstration and group discussion.
3. Before we start the procedure we need to point out what equipment is being used. As we point out what the equipment is we can hold it up so that all can see.
4. We also need to explain how the equipment is arranged.

5. After each step of the procedure is demonstrated, we need to stop and look at the group. Ask if they saw and understood what was done and HOW it was done. If they did not, we need to do this step again before we move on to the next step.
6. We move on this way until the entire procedure has been shown.
7. Let all the members of the group come and see, and touch the equipment, put it together OR take it apart.
8. Ask one person in the group to do the demonstration again. We need to encourage him/her and keep on telling him/her when he/she is doing well, e.g. make remarks like "that's good", "that's fine".
9. Each member of the group should be given the same chance to practise. This could even mean that they work among themselves in the afternoon and evening.

Each skill like each problem is different. But some things are common to all, such as:-

1. before giving any equipment we must know exactly what we are going to do with it
2. we must prepare what equipment we will need and put it together
3. we must prepare it beforehand and if necessary boil it (e.g. scissors, syringes)
4. we must prepare the solutions and drugs we might need
5. before beginning we must explain to the patient what we are going to do and why and what we expect the result will be.

#### i) GIVING AN INJECTION

Let us take an example of how to learn a manual skill, such as "how to give an injection". We need to relate it to a problem so let us take problem 4.3 in the Working Guide.

We could illustrate the problem through story telling or by acting. Let us say a young boy falls from a tree and cuts his leg. We need to look carefully for the following signs: where is the wound, is it bleeding or not ... (follow the questions in the Working Guide).

Following the Working Guide you may draw up a story where you outline what are the steps to take when you first see the little boy. Use the steps in the Working Guide to build up the end of your story.

You will see when you study the problem (and as suggested to you in the Working Guide) that if the wound is big and is dirty you may have to give an injection of penicillin every day for three days.

How do we learn to give an injection. The most important thing is that we must do the task so that it does not hurt the patient. It must be done with the least possible risk and the least possible pain to the patient. Ask everyone in the group if they have ever had an injection. If so, into which part of the body did the needle go; did it hurt?, etc. In this way you can lead the group to think about the feelings and maybe the fears of the patient. At the same time it is important that the group understands that it is not the injection that cures, which is what many people believe, but the drug which is injected.

Many people believe that injections give a quick cure and they have faith in them. We need to learn and to convey to the patient and especially to mothers of young children, that some very good drugs are taken by mouth and not injected at all.

Why do we give an injection: through questions and answers we should be able to give the following information:

Reasons for giving drugs by injection

- (a) some drugs are made weak or destroyed by water (juices) in the stomach if taken by mouth
- (b) some kinds of injected drugs act for a long time in the body -  
example: procain penicillin - one injection a day is enough
- (c) usually medicines take action more quickly by injection than  
by mouth
- (d) injections are always used when a patient is not able to take a  
drug by mouth because he is vomiting or is unconscious.

STEP I: How to explain to the patient and/or family what you (PHW) are going to do

The PHW must recognize that this first step is very important. Suggest what one PHW acts the role of the patient and the other acts the role of the PHW who will explain what he is going to do, why he is doing it, and where he will put the needle. Why? We should remember that small children are especially frightened of injections and have to be handled gently. The PHW can learn in the dispensary how to instruct the mother to hold the child.

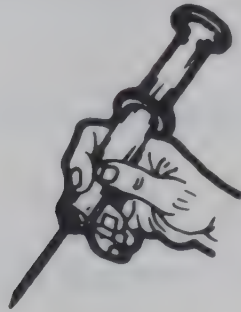


STEP II: How to prepare the equipment and material

We must remember the importance of cleanliness: the PHW must have clean hands and clean, short, finger nails. The equipment must be clean, the patient must be clean. Why? Here you can link up learning to other problems where the same technique and principles apply, e.g. Problem 4.1 "Burns" includes cleaning of skin, hand washing, etc. Let the individual PHW look at the drawing in the Working Guide then select the articles required for giving an injection. In this way they will get used to identifying and handling the equipment. They can practise taking care of equipment, how to clean it, how to put a syringe together, how to hold it, how to carry it to the patient.

STEP III: How to give an injection (this part is complementary to pages 242 - 246 in the Working Guide)

To inject into these different places the angle at which the needle is put in is important. The angle at which to insert the needle is shown here:



INTRAMUSCULAR

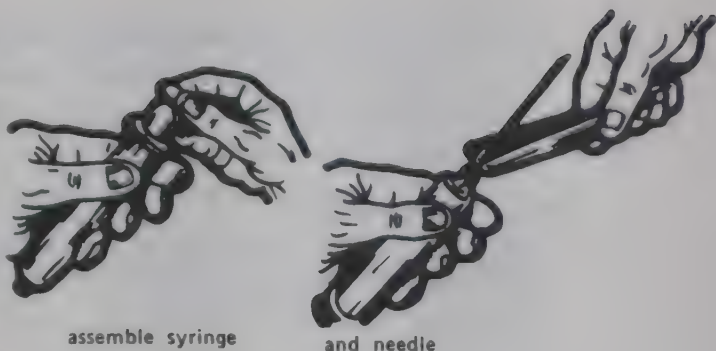
Have sharp needle. Before boiling it, check that needle is sharp by running finger along tip and passing needle through cotton wool. A sharp needle should not pick up any wool. Sharpen a needle by rubbing it on a stone.

Have a sterile needle and syringe.

Wrap the syringe and needle in a clean cloth and cotton pieces and BOIL for 10 minutes.



When giving many injections at one time you may not be able to boil the needles. You can pass a needle through the flame of spirit lamp for just long enough for a spitting sound to be heard. Do not heat it so much that it becomes red. If you have one, use a thumb forcep to pick up the boiled needles, or wash hands first. NEVER LET ANYTHING (flies, fingers, clothes) TOUCH A BOILED OR FLAMED NEEDLE.



Draw up the drug into syringe.  
See on next page how to do this.

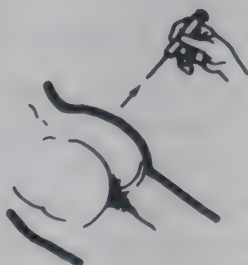
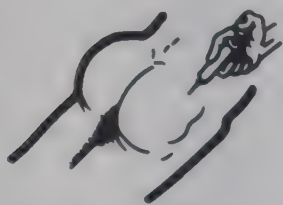
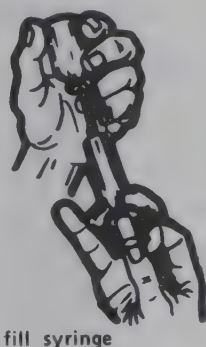
Keep needle sterile until you inject the drug into patient.

Lay the syringe on a raised surface so that the needle does not touch anything.

Position the patient as needed for place of injection.  
Children are afraid of injections. Hold them well.

Clean skin of injection site with a soapy sponge.

Draw up drug into syringe



For the teaching of the intramuscular injection in the buttock as well as the sub-cutaneous, follow the steps as described in the Working Guide, pages 242 to 246.



ii) *TAKING THE TEMPERATURE AND EXAMINING THE PATIENT*

Another example, a manual skill is taking the temperature and examining a patient. Read Problem 1.2 in the Working Guide, "Feverishness". Following the method used to learn other problems let us break down the problem of fever.

1. What do we need to know?

- what is a FEVER? (see page 11, Problem 1.2)
- what shows that fever is present
- how does it occur
- how to prevent fever
- how to ask questions and find out the possible causes of fever
- know diseases in which fever is a danger sign (e.g. malaria).

2. What must we be able to do? We must be able to:

- note signs of fever
- recognize the signs of the most common diseases in your area in which fever is a danger sign
- give the right treatment for fever according to signs present
- take action, when possible, to prevent fever
- understand the signs on the temperature chart
- teach the family how to care for patient with fever
- recognize when signs are serious and to refer the patient to other health workers.

3. What do we need to learn?

- what causes fever
- what is a normal temperature
- what is a fever
- what are the signs of fever
- what are the disease which are accompanied by fever and those which are especially dangerous in the area in which you live
- how to examine a patient with fever (see point 1.2.2 in the Working Guide)
- how to take the temperature in the rectum (used when taking temperature of child 0-5 years or when an adult is very weak) in the mouth and under the arm
- how to read the thermometer, see page 240 and write the temperature on the chart

- how to take the pulse and count the breathing
- how to clean the thermometer and stop it from being broken
- how to know which problem to refer to in the Working Guide when fever is present
- how to give the right treatment - by mouth, by injection
- how to give fluids
- how to make patient comfortable, give advice to the family (problem concerning care and when to return to see PHW).

#### STEP I

A combination of methods are used. The causes of fever can be discussed in a group. For example, students begin by asking each other: "Have you ever had a fever? What kind of fever (local name)? How did it begin? What did you or your mother do about it? What kind of treatment did you have? Did you get well quickly?" Then ask what is the usual (or indigenous) treatment for fever in your community? One person could write all the answers on the blackboard. Building on this the group will come to understand what causes fever. When a person has a fever it is a sign that there is sickness in the body. Germs, which we cannot see, enter the body. They begin to grow and the number increases. The body tries to fight the germs and kill them. Sometimes the body is not strong enough and the person becomes ill. Fever is a sign that a fight is going on in the body. We also have to give treatment (medicine by mouth, or by injection) to help the person to kill the germs and get well again.

Discuss the indigenous treatment given and if the measures are good such as giving plenty to drink to a feverish person, emphasize these points. If, on the other hand, certain measures appear to you to be harmful, such as not giving anything to drink to a person with fever, this should lead to a discussion to point out why it is harmful and should be discouraged.

#### STEP II: Practice

The next part concerns examining a patient and taking the temperature so we must learn the correct procedures. The group members can take one another's temperature, read the thermometers, practise writing the temperature on the chart, reading a temperature chart; the same method can be used to learn and understand why and how we take the pulse and count the breaths, or respirations. Then students must learn how to do this task in the dispensary or in the home of the patient. They

also learn to watch patients, how they look and behave. Do they look tired? Do they seem to be in pain? What other signs are present? Remember that fever is only a sign that a person is sick, other signs may be present. The teaching of taking a temperature figures in the Working Guide, page 240.

We have to remember when learning in the HC/Dispensary that many people may be waiting for treatment and the health worker may be very busy - so we have to watch carefully how the health worker does his work, before we can do these things ourselves.

So we learn by watching or observing. Then we learn by examining the patient and by learning how to use our hands gently, finding out what is not normal; for example: the skin is very hot; the patient feels pain when we press a certain part of the body.

At the same time, the skills we have learned about talking with the people will be used. But we must remember that the patient is ill - only ask the most important questions, such as, were you well yesterday? did you eat or drink? do you feel more ill today? where is the pain? etc. Try to make the patient feel that everything will be all right so that he will not be too worried.

#### STEP III: Writing down results

The PHWs should write down what they observe and the results of the examinations so that they can be discussed with the other health workers and later with other members of the working group. This will lead to discussion of the treatment: discuss again signs - look for the corresponding problem in the Working Guide. Note the treatment you must give. If the medicine is to be given by injection, see the section "How to give an injection".

#### STEP IV: Helping the patient to get well and keep well

When the patient is better, talk with him and tell him why he/she became sick. Talk about what he can do to keep well and how to stop the sickness from coming back or how to stop it from going to other people.

#### Using a combination of methods

We have already discussed a variety of teaching methods which we can use according to the problem we are dealing with. We have also mentioned that we can use a combination of methods and showed how different methods can be used when we discussed story telling, play acting and manual skills. To understand the use of a combination of methods we shall discuss another example.

The example we have chosen is a normal event which happens in our lives. However, if we are not careful and do not do certain things this normal event becomes a problem.

The example chosen is the birth of a child which begins when the mother becomes pregnant and continues after the baby is born.

If we refer to the Working Guide it will include problems 2.1, 2.2, 2.3, 2.4 and 3.1.

Breaking the problem down

A. What do we need to know: firstly,

A.1 Is the woman pregnant? If we look at the first page, we shall find a brief description of the signs of pregnancy. We may add to this description that as the months go by, other signs will appear: the breasts become bigger, and during later months, the nipple becomes darker and fluid can come out of the breast. The future mother may find that she wants to pass urine frequently and the baby in the tummy moves and kicks.

A.2 The woman is pregnant. We must understand what happens to a woman normally from the beginning when the baby is first formed inside (this is called conception) to the end when the baby comes out (this is delivery or childbirth). We must know how to maintain a healthy pregnancy:

what to eat

rest and movement

passing stools and urine (elimination)

when to visit the PHW or village midwife.

A.3 Recognize when something is wrong.

a) early signs such as:

vomiting

bleeding

tiredness

pain in the tummy

swelling of feet

other illnesses (cold, cough, fever, ...)

and what to do if such signs happen.



b) dangerous signs (usually happen in the later months of pregnancy,  
5 months and over)

continuous vomiting

heavy bleeding

fainting

headaches

swelling of feet, hands and perhaps face

severe pain in the tummy or tummy looks hard and large

baby does not move

other illnesses (cough, fever, diarrhoea, etc.).

B. In order to know the points already mentioned we should be able to:

B.1 Talk with a woman, ask questions and listen.

B.2 Write down certain things such as:

age of woman, number of children she already has, last menstruation  
or period, general health.

B.3 Examine the woman. Note general health, examine abdomen; find out how many  
months she has been pregnant; take her weight. Ask the woman questions  
and listen to her complaints, if any. When possible, test her urine,  
take her blood pressure, take her temperature/pulse. (follow techniques  
in the Working Guide)

B.4 Give advice and teach future mother what to do: explain to her

- how to keep well, what food to eat or what to drink
- which signs to look for to see if something is wrong: and where  
to go for help or advice and when to visit
- how to prepare for the birth of the baby
- how to know when labour will start
- how to keep herself and her baby well
- breastfeeding
- birth spacing or family planning.

(see Problem 2.4 in the Working Guide).

C. We need to learn:

- how to know when a woman is pregnant
- how to ask questions and what questions to ask; and how to  
listen for answers
- how to write down answers in just a few words

- how to examine a pregnant woman
- how to recognize abnormal (or, not normal) signs
- what to do for certain signs found
- how to take temperature, pulse and respiration
- how to test urine
- how to weigh
- how to decide which treatment to give (if any)
- when to refer (or when to tell the woman to see someone else, such as the nurse, midwife or doctor)
- how to teach and advise mothers how to keep up their health and the health of the family, and to prevent complications
- how to teach that breastfeeding is good
- how to teach about birth spacing, or family planning (see Problem 2.4 in the Working Guide).

The methods we should use to teach about topics A, B and C could be for:

Topic A - Small group discussion method with student assignments

Topic B - Small group discussion method with story telling and play acting

Topic C - Learning manual skills where the demonstration method would be used for groups followed by students doing the demonstration again and individual practice. Future PHWs can practise these skills on each other - e.g. taking each other's temperature, weight, pulse, etc.

#### Then we can go to Problem 2.2

The end of pregnancy: the mother will soon deliver her baby. Like pregnancy, delivery is a normal process and will usually stay normal if certain simple measures are taken. These measures will protect the mother and the child during delivery and also afterwards.

#### Breaking the problem down

##### A. What do we need to know?

1. If the woman is in labour
2. If the pregnancy was normal, if yes, one can expect a normal labour
3. When her bladder is full, or what the signs are when her bladder is full
4. If she has passed stools today
5. When she last had a drink and something to eat
6. Did she have local medicine



7. The progress of labour: beginning, pain, kind of pain, how often is the pain when the baby is about to be born, signs when the baby is coming out when the tummy is hard again
8. Amount of blood: how much bleeding? A lot or a little bleeding, when bleeding must stop
9. Condition of normal new-born baby how to help its breathing
- B. What do we need to do
  1. Examine the woman to see if labour has begun, note Point 1 in the Working Guide<sup>1</sup>
  2. Prepare mother for labour, refer to Point 2 in the Working Guide.  
Prepare the area where the birth will take place, e.g. clean bed or mat; boil water; clean cloths; clean baby's clothes
  3. Deliver the baby, follow Point 3 in the Working Guide
  4. Take care of the baby as soon as it comes out
  5. Deliver the afterbirth and examine it. Follow Point 4 in the Working Guide
  6. Take care of the mother.
- C. What do we need to learn
  1. The signs of labour, normal and abnormal
  2. How to use what we know about her pregnancy
  3. To recognize when labour pains become stronger
  4. How to encourage a woman to pass urine
  5. How to give an enema if no stools were passed today
  6. Signs which tell us that the baby is about to be born
  7. What is the bag of waters, how it protects the baby's head and what happens when the bag of water breaks
  8. What to do to prepare for the delivery of the baby (see Part 2 in the Working Guide)
  9. How to deliver the baby
  10. What to do if the delivery is not normal. e.g. a foot comes out first, or if the cord is twisted around the neck, or if the buttocks or the feet come out first, or if the shoulder comes out first
  11. After the baby is born:
    - how to wrap it up
    - how to clear the mouth and nose of fluid

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<sup>1</sup> Be sure she is encouraged to pass urine. This can be done for example by pouring warm water over the genitals. Also that she has passed stools, if NOT, give her an enema.

- how to cut and treat the cord (here local customs must be considered)
  - how to put eyedrops in the baby's eyes
12. How to know when the afterbirth is ready to come out - what to do;  
how to know when the bleeding is too much and what to do  
(e.g. rubbing up a contraction by massaging the tummy) see 4.4  
in the Working Guide; what to do if the afterbirth has not  
come out (see 4.3 in the Working Guide)
  13. How to take care of the mother
  14. How to clean the mother and make her comfortable
  15. How to wash the new-born baby and weigh it and look for signs that  
are not normal
  16. How to clean and tidy up the equipment
  17. After she has rested, how and when to talk with the mother about taking  
care of her new born baby. When to come again to visit the PHW for  
check-up and further advice on when the PHW will visit her at home.  
The PHW will also advise her when the first vaccination (BCG and  
smallpox) can be done
  18. How and what to teach members of the family about mother's diet (what to  
eat), importance of fluids and how to take care of her during the next  
few days especially to watch for:
    - bleeding
    - fever
    - cramps
    - bad smelling dischargein which case to immediately inform the PHW
  19. What to do if the mother has fever, bleeding, cramps, bad smelling discharge
  20. How to advise mother or family member how to take care of the baby,  
especially the CORD, and to call the PHW if there is any discharge  
from the CORD or from the baby's eyes or if any red spots appear on  
the skin
  21. How to take care of the child (see Problem 3.1 a well fed child)
  22. How to use and fill in the growth chart
  23. How to write the record card
  24. How to immunize children and WHEN

25. How to advise mothers and fathers on birth spacing or family planning so that they may regain their strength and keep up their health
26. Where to send mothers or fathers for help with birth spacing or family planning

#### Methods to use for Problem 2.2

In order to learn about care during and after labour, for the mother and baby, again we can use a combination of methods. The part A about what we need to know can be taught in group discussions and we can use drawings or a model of the woman's pelvis with the baby inside. This can be used to show the process of how the baby moves down and comes out of the mother. To learn about contractions we can use a balloon which can be filled with air at intervals and covered with a cushion to muffle the sound. This will help give a feeling of the tummy becoming hard with pains, and soft when the pains go away. These are a combination of the methods of group discussion and demonstration, using the demonstration again for return demonstration, where the students practise the process themselves.

After everyone understands the process, it can be followed up with, **FIRSTLY** observation of a delivery in the maternity or in the house. Then it would be followed up by individual practice in order to gain confidence and skill. At this point it is necessary to have one teacher with one student where the student delivers the baby with the help of whoever is responsible for teaching (it may be in cooperation with the local maternity hospital or clinic). Two more students could be observing and helping during the delivery. The development of manual skills and observation skills is also necessary because we need to learn the various procedures involved, e.g. how to deliver the baby and placenta, how to clean the cord, how to clean the eyes, how to immunize a baby, how to record events, how to prepare and maintain equipment, etc.

Once we know how to deal with Problems 2.1, 2.2, 2.3, 2.4 and 3.1 in the Working Guide, we can then approach the community and be able to do the following:

1. Find out where are the pregnant mothers and how many in the village we serve (read how we approach the community)
2. Find out how many children there are under 5 (read how we approach the community)
3. Organize a meeting with groups of mothers to talk about mother and child care; after a meeting, make arrangements to meet each woman individually at home to discuss what to do in pregnancy

and how to take care of herself and her family. The mothers and the PHW should decide together when you need to see each other again

4. Talk with mothers about when and who will immunize their children, when you will discuss how to keep themselves in good health:
  - nutrition
  - birth spacing or family planning
5. Organize when you will discuss and demonstrate about nutrition and how to help to prevent illness
6. Other subjects should be discussed later on with the women when they are raised during the meetings.

#### TALKING WITH PEOPLE ABOUT HEALTH

A person who becomes sick can often be cured of his sickness. But while he is sick he loses time from work (or from learning at school if he is a child) and some sicknesses, even when they are cured, leave the person weak and easily tired for a long time afterwards. So while it may be much easier to show that we have helped to cure a person, it is much more important, and better for the person, if we can help to stop him from becoming sick.

##### *How can we do this?*

Most of the things that can be done to stop sickness from coming have to be done by the person himself (in the case of babies and young children by the mother or other person who looks after them) and sometimes by the community working together. So our task must be to help people to understand the causes of sickness and the ways to prevent sickness. It is just as important to help people to remain healthy and to show them how to become stronger in order to do their work. We must talk to people, perhaps show them how to do some things and show them pictures.

##### *When do we talk to people?*

People who are very sick, or whose children are very sick, will not want to listen to anything except how to cure the sickness. But when they are getting better they may be prepared to talk and to listen about ways to prevent sickness.

If there is a great deal of sickness (an epidemic) in the village, those who are not yet sick may be willing to think about ways to stop the sickness.



For example, even if prevention means protection of the water supply, this cannot be done at once, people may be willing to discuss and agree to do something when the epidemic has finished, or when planting or harvesting is over.

Sometimes, quite unexpectedly, people who are well will ask a question which gives us a chance to talk about prevention. Even though nothing may happen at once, the person will go away and think about what has been discussed. Later he may ask more questions, or talk to others, and they will ask questions. It may take a long time, and many explanations, but at last something may change if we do not try to make people do something too quickly.

*Who do we talk to?*

We may talk to individual people, to groups, or to the whole village. Some things people must do for themselves, but it is easier to change what we are doing if a number of people agree together to make the change, and to help one another. So very often we may need to talk with people by themselves, but also to talk with small groups, for example, the mothers of young babies, so that they can discuss the new ways and agree together on what to do.

If there is a need for the whole village to decide on something, for example, to protect the water supply so that it does not bring sickness, then we must ask the chief or responsible person to call a village meeting. It will be easier at the village meeting if we have already talked with a number of individual people, and explained what is needed and why, so that they already understand and will help to explain things to other people. It is especially important for the village leaders and influential people to understand the problem before the big meeting begins.

*What about customs and taboos?*

Often the way people behave, the things they do, are things which have always been done that way by the people. The older people teach the younger ones, and everyone behaves in the same way. Some of these old ways are good. We should try to find such good ways and to help the older people to teach others to keep these ways. This should please them, and make them more ready to listen if we want to talk about changing other ways.

Some of the old ways may not be very good, but if they do not bring harm, there is no need to try to change them. They are not important for us to change, so we can forget about them.

Some of the old ways are not good. We should look carefully at these. These old ways for example often tell us that good foods must be kept for the men, and not given to women or young children. We should talk quietly with the elders to find out why these old ways are kept. Perhaps they were once important (when men had to fight to protect their families, for example) but they may not be quite so important now. Try to get the elders to think about these old ways, and maybe after a while they will agree to help you to change them. This is very important, but if they refuse to change, then do not openly and directly go against them. Just try to make people think a little about the problem, and have patience. For if you have the elders fighting against your work, it will be very difficult or even impossible for you to work in the village. In time, and with the help of others such as the teacher, the agricultural extension worker, and others, the elders may see the need for a change; or there will be enough people in the village who agree together so that they will quietly make the change.

*How do we talk with people?*

The first and best way is to know how to listen to others when asked such questions as: What do they think about health? What do they think about your idea? Can they propose new things that will help themselves or others? Do they understand what you are proposing? Listen first, and often, then you can talk.

There are many ways of bringing new ideas to people. We may talk directly. We may answer questions. We may ask questions and leave people to think or talk about the answers. We may help people to make up songs, or dances, or plays or stories. We may ask storytellers or players (griots) to do so. We may ask others (supervisor, other workers, visitors) to talk to people. We may show pictures - flannelgraphs, photos, flip charts, etc. We may use the visit of a film show. We may get people to listen together to a radio broadcast.

Whatever way we may use, it is important that it is the people themselves who decide to make a change. We cannot force them to do so. We can only go on explaining, answering questions, helping them to think things out for themselves, and we must of course always ourselves behave in the way we wish others to. Our example may often be the best way of finally persuading others.



Summary: Examples of how to use different learning/teaching methods

Learning process	
Method (How)	Content (What)
<p>Developing manual skills:</p> <ul style="list-style-type: none"><li>- story telling</li><li>- play acting</li><li>- jokes, songs, dances, proverbs</li><li>- demonstration</li></ul>	<ul style="list-style-type: none"><li>- illustration in step form</li><li>- injection, temperature (also refer to the Working Guide)</li><li>- the importance of talking with people about health.</li></ul>

### 3.

## Evaluation

#### 1. HOW CAN WE KNOW THE PURPOSES OF TRAINING HAVE BEEN ATTAINED?

Evaluation is to really understand what we are doing and perhaps why we are not achieving what we hoped to achieve. We have referred to evaluation many times in the document, for example when we asked the student to do a demonstration we can see if he has learned certain skills, by questioning and talking with students about a story we try to find out if the message we want to give has been understood. Therefore, evaluation is an essential part of any training programme as it is in almost everything we do in life:

- we know when rice is cooked and is tender and good to eat. If we do not cook it long enough it is hard not good to eat

- we know how much time we need to go to the market, etc.

If we think of the student, evaluation is necessary to help him see:

- how well he is learning what he should be learning
- why he is not doing better
- in what aspect is he strong or weak?
- in what way can he be helped to improve?

- to encourage the student who is doing well to continue learning
- that the student himself takes part in the evaluation. He must know the result of the evaluation so that he knows the weaknesses and strength of the particular learning activity and build on them. This is to help him and not to judge him.

### If we think of the teacher

Evaluation is the best way for him to know the result of his work. The teacher helps the student by reacting to the student's effort to learn. Often students do not learn because the teacher is not a good and encouraging teacher.

### If we think of the training programme

Evaluation helps to find out whether the objectives of the training programme have been achieved, that is to say is the student able to do what the programme said he should be able to do at the end of his training. It also shows points in the programme which should be improved. For example, if we find that what the student has learned concerning infant feeding cannot be applied usefully when he teaches mothers in the village because, for example, people do not believe in giving certain food to children, we should find out the taboos behind it and, then we should make a bigger place in the programme to finding out about taboos and customs.

## 2. WHEN SHOULD WE EVALUATE?

Evaluation goes on all the time. It starts with the learning objectives, which themselves need to be revised, and from there there is no end to it as shown in the teaching module. It is used as a basis when learning about the different problems to see how the students are progressing, where they need further help or individual attention. Later when they work in the community, evaluation is used to find out through their comments on problems and situations that they meet in their daily work, whether what they learned is useful, or if they found problems for which they were not properly trained to deal with.

Another aspect of evaluation which shows training was good is to see the primary health workers working with interest and satisfaction; to see them staying and continuing their work, increasing it, and seeing that the community is happy with the services given.

All this information is used to improve and/or change the learning/teaching programme.

## 3. HOW CAN EVALUATION BE DONE?

During learning/teaching activities many opportunities arise for evaluation. The training of Primary Health Workers is concerned mainly with the student's ability to do certain things, practical tasks.

Some types of evaluation that can be used are, for example:

- while doing practical work the teacher can observe and both student and teacher can ask questions, also during story telling, play acting and home visiting. This will show if the student is progressing and learning more
- teacher talking with the student (not to) has the advantage of personal contact which helps to find out what the student really knows, feels, etc-
- group discussion during which the teacher will observe the student's participation, especially his contribution to discussion, and the ways he says, and judges, what to do in certain situations
- observation is not just looking. It is finding out, for example, such information as the following:
  - how did the student try to find out about a problem?
  - what action did he take?
  - did he choose the right moment to teach an individual or a group, did he use the proper words?
  - did he give a demonstration?
  - did he listen properly and encourage the group to ask questions?
  - did he give the right answer?
  - etc.
- questioning is another way of evaluating what the student knows, this means that the teacher should listen carefully and patiently. The following are some examples of questioning:
  - at the end of a day the teacher could ask the student:
    - what was the most interesting thing you did today?
    - why?
    - did you discover something new?

OR

- at the end of the learning experience in the community the teacher would ask the students:
  - what did you see?
  - what did you do?
  - how did you feel about it?

4. WHAT ARE THE ASPECTS WITH WHICH THE TEACHER SHOULD BE CONCERNED  
WHEN EVALUATING LEARNING/TEACHING

Three things are important for the teacher to remember when evaluating learning:

- i) if the teacher wants to find out how much the student knows and is able to do about a subject, for example, burns, he must ask the student those questions and observe those actions that are related to burns. Therefore to ask a question about a fever in this case is not so important as infection
- ii) if the teacher wants to find out if his evaluation is a good one he should obtain almost the same answer from the same group of students to the same questions
- iii) if the teacher wants to avoid factors that affect the evaluation of a learning experience, he can prepare in advance the most important answers that should be given to particular questions as shown in the following example:

Questions	Answers
Say when any medicine can be poison	<ul style="list-style-type: none"><li>- if it is given to the wrong person</li><li>- if the wrong amount is given</li></ul>
Say when medicines are useless	<ul style="list-style-type: none"><li>- if it is not taken by the patient</li><li>- if it is not taken at the right time</li><li>- if it is not taken long enough</li></ul>
When you give medicine say what it is that you have to make sure your patient understands	<ul style="list-style-type: none"><li>- how much medicine they should take</li><li>- how often they should take it</li><li>- how long they should take it.</li></ul>

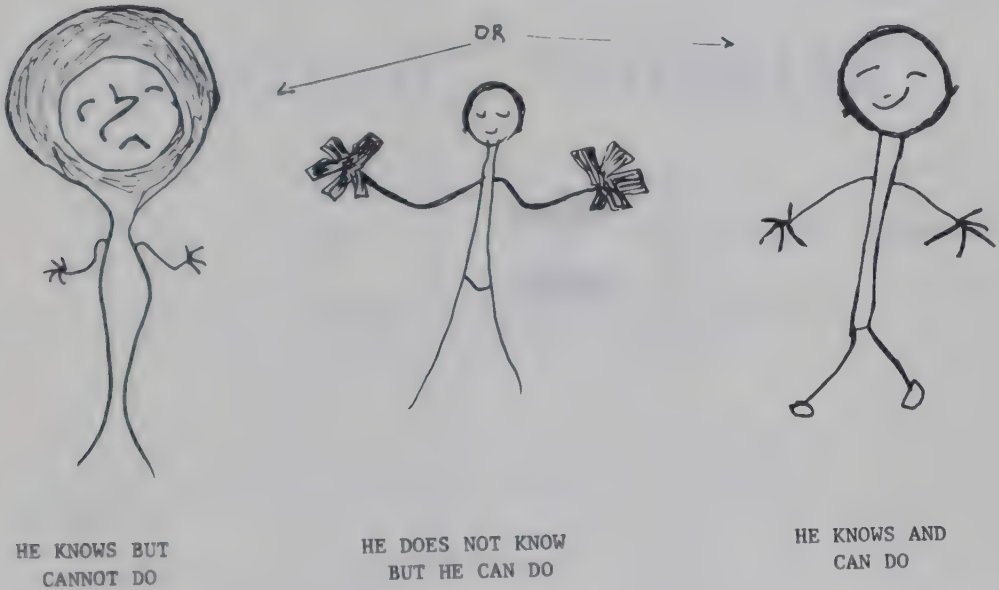


5. WHAT TO DO WITH THE RESULT OF EVALUATION

When evaluating a student the following may be found, as shown in the drawing:

- 1) he knows but cannot do
- 2) he does not know but he can do.

OUTCOME OF LEARNING



Learning objectives are aimed at producing a person who knows the important thing about the task he is doing and can do that particular task. Therefore, when we have obtained the results of evaluation we must compare them with the learning objectives so that we can see if he has learned all that he should have learned. If he has not learned we can correct the weak points. For example, for one who does not know what he should know about a task but with his hands he can do the task such as "one who can very well weigh a baby but does not understand the danger of the baby becoming thinner or how to teach the mother to give the right food to her baby", for this student we have to spend more time in helping him to learn and understand this danger and practise this teaching.



For one who knows about a task and can answer questions and teach others well but is not able to do correctly important tasks like a dressing or giving an injection, we must help him to correct what is wrong and to spend more time doing practical work. So we see why it is important to write what you want the student to be able to do at the end of his training (learning objectives) so that you can see if he has learned these tasks (evaluation) and when and why to go back to correct what is wrong and continue to develop what is good. See diagram below:

The link between learning objectives and evaluation:



## 4.

# Examples of learning modules

*A "learning module" is a planned set of activities  
which will assist the student (the PHW) to  
develop a specified competence.*

Learning modules can be elaborated for each problem given in the Working Guide (Part I). They are likely to facilitate both learning and teaching activities by organizing them in a logical way.

Two examples of learning modules are given hereafter built around two problems in the Working Guide, namely:

1. "The badly-fed child" (Problem 3.2, page 88 )
2. "Burns" (Problem 4.1, page 94)

The sequence is the following:

1. Once the problem is stated,
2. learning objectives are described,
3. the teacher finds out what the PHWs already know about the problem,
4. the learning content, as in the Working Guide, is then divided into what the PHW should know (knowledge) and what he should do (skills),
5. reference and use are made of what a PHW has already learned,
6. the learning teaching methods are selected, listed and used in order of importance,
7. finally, the progress made by the PHW is assessed.

The same process can be applied to each one of the 33 problems dealt with in Part I, as well as to those which will be identified and studied to meet specific needs of a given community. Teacher training centres, WHO or other advisers can easily assist you in this task, if necessary.

Example 1: "The badly fed child" (see Part 1, Problem 3.2)

Learning objectives	Finding out what the PHW already knows about this problem	content (as from the Working Guide)		Using what a PHW has already learned	Learning/teaching methods*	How is the PHW progressing (Evaluation)
		What a PHW must know	What a PHW must do			
<p>To be able to:</p> <ul style="list-style-type: none"> <li>-weigh a child</li> <li>-decide whether the child has the right weight for his age</li> <li>-recognize 3 major signs of mal-nutrition</li> <li>-show a mother how to prepare a bottle of liquid to feed a child suffering from mal-nutrition</li> <li>-tell in what cases a PHW would send a child suffering from severe mal-nutrition to the hospital or health centre.</li> </ul>	<p>Has he seen a malnourished child or heard of one?</p> <p>What did he look like?</p> <p>What was done for the child?</p> <p>Did he get better or worse or died?, etc.</p>	<p>Review briefly the growth and development of a child. Early signs of mal-nutrition:</p> <ul style="list-style-type: none"> <li>-persistent crying</li> <li>-diarrhoea</li> <li>-getting thinner</li> <li>-not growing well</li> </ul> <p>Sever signs of mal-nutrition:</p> <ul style="list-style-type: none"> <li>-skin creases (the child just skin and bone)</li> <li>-eyes dull</li> <li>-does not eat</li> <li>-vomits</li> <li>-diarrhoea</li> <li>-fever</li> <li>-swelling of legs, feet and hands</li> <li>-hair changes colour</li> </ul> <p>Treatment:</p> <ul style="list-style-type: none"> <li>-replacing lost liquid</li> <li>-changing or correcting child's diet</li> </ul> <p>Signs of improvement or getting worse</p> <p>When and where to refer?</p> <p>How to organize a community gathering for health teaching.</p>	<p>Examine a child</p> <p>Weigh a child</p> <p>Use weight chart</p> <p>Talk with mother</p> <p>Demonstrate how to prepare food for child and how to give it and return demonstration by the mother</p> <p>Give liquid mixture (water, oil, condensed milk)</p> <p>Give medicine</p> <p>Prepare and clean equipment</p> <p>Send sick child to hospital or health centre</p>	<ul style="list-style-type: none"> <li>-How to compare the weight of healthy child with the age of the child</li> <li>-How a baby grows and develops</li> <li>-The well-fed child</li> <li>-Local food customs and habits</li> <li>-Advantages of birth spacing for mother and child</li> <li>-Nutrition</li> </ul>	<ul style="list-style-type: none"> <li>• Observation of how mothers feed their children (house, dispensary, market) and talk to them</li> <li>• Find out local food habits and customs, what food available (special assignment) watching and giving demonstration</li> <li>• Talking with people about healthy nutrition</li> <li>• Getting the help of the agricultural extension worker to teach local people to grow food</li> <li>• Practise work in a dispensary, home visiting</li> <li>• Group discussion (students talk about the growth and development of children, their own or others)</li> <li>• Play acting</li> </ul>	<p><u>Ways of evaluating this:</u></p> <p><u>Observation of the PHW</u></p> <ul style="list-style-type: none"> <li>- During weighing the child: Did he check that the scale is balanced</li> <li>Did he hold the child safely</li> <li>Did he talk with child and/or his mother</li> <li>Did he read the correct weight and write it on the chart?</li> <li>- How did he examine the child, e.g. did he press the skin to see if swelling of the leg is there, or if the skin creases?</li> <li>- How did he teach the mother about giving fluid to her child, did he show her how to do it?</li> <li>- Did he prepare and clean equipment?</li> <li>- Practising other tasks:</li> </ul> <p>Giving fluid or medicine, demonstrating about food with the mother at home and/or women in the community.</p> <p><u>Questioning oral and written, and listening</u></p> <ul style="list-style-type: none"> <li>- Is the weight of the child correct for its age? If not, why not?</li> <li>- What would you do for him?</li> <li>- How would you know if he is improving?</li> <li>- How can you tell it is becoming serious? What would you do for him?</li> <li>- What can you do to prevent this problem?</li> <li>- What can the mother do?</li> <li>- What can the community do? And who can help?</li> <li>- What did you know about this problem in your special assignment?</li> </ul>

\* Give to each method listed here a priority number in order to begin by the ones you consider the most important and leave aside those you may not have enough time to deal with.

Example 2: "Burns" (see Part I, Problem 4.1)

Learning objectives	Finding out what the PHW already knows about this problem	Content (as from the Working Guide)		Finding out a PHW has already learned	Learning/teaching methods <sup>4</sup>	How is the PHW progressing (Evaluation)
		What a PHW must know	What a PHW must do			
<p>To be able to:</p> <ul style="list-style-type: none"> <li>-decide whether the burn covers a small or a large area</li> <li>-decide when a patient with burns should be sent to the hospital or health centre</li> <li>-recognize whether the skin is covered with blisters only</li> <li>-recognize whether the skin is broken or has been removed</li> <li>-clean a wound</li> <li>-treat blisters and skin which is broken or has been removed</li> <li>-treat a wound that smells bad or from which a yellowish fluid is coming out</li> <li>-tell the patient and his family how to prevent burns</li> </ul>	<p>Has he ever been burned or someone in his family burned?</p> <p>What did they do for this burn? What happened to the person who was burned?</p>	<p>What causes burns</p> <p>How to prevent burns</p> <p>The danger of a large area of skin being burned</p> <p>How to keep the burn clean and prevent infection (clean hands, flies control ...)</p> <p><u>When large area of the skin has been burned</u></p> <p>First aid, taking a temperature, giving an injection (techniques)</p> <p>The importance of giving fluid</p> <p><u>When small area of the skin has been burned</u></p> <p>Recognize and treat blisters</p> <p>Techniques of dressing</p> <p>What advice to give to the patient or his family</p> <p>How to recognize complications (fever, discharge, bad swelling) and when to refer</p> <p>How to organize community gathering for health teaching</p>	<p>Teach the prevention of burns (protect children from fire and boiling water)</p> <p>Give first aid</p> <p>Put on dressing</p> <p>Give fluid</p> <p>Take a temperature</p> <p>Give penicillin injection or treatment as prescribed</p> <p>Send patient to the hospital</p> <p>Follow up the patient treatment</p> <p>Refer in case of complication</p> <p>Prepare and clean equipment.</p>	<p>-How to do a dressing, an injection, take a temperature</p> <p>-How microbes spread infections (as described in "feverishness")</p> <p>-How flies aggravate infection (as described in "Waste disposal")</p>	<ul style="list-style-type: none"> <li>•Observation of a burned person</li> <li>•Practical experience in treating a burn</li> <li>•Group discussion about burns (severe, mild) (complication) ...</li> <li>•A/V drawing on blackboard by teachers and students</li> <li>•Review demonstration of dressing techniques</li> </ul>	<p><u>Ways of evaluating this:</u></p> <p><u>Observation of the PHW</u></p> <ul style="list-style-type: none"> <li>- Are his hands clean?</li> <li>- How does he examine the patient?</li> <li>- Does he examine the patient gently?</li> <li>- Does he speak with the patient or his family and reassure them?</li> <li>- Does he give the right treatment according to whether the burn area is large or small?</li> <li>- Does he prepare the necessary equipment and clean it afterwards?</li> <li>- Practising other tasks:</li> </ul> <p>Taking the temperature (see technique), giving the IM injection (see technique), doing the dressing.</p> <p>Teaching the patient and the community.</p> <p><u>Questioning the PHW (oral and written) and listening</u></p> <ul style="list-style-type: none"> <li>- Is it serious, why?</li> <li>- Is he giving fluid, why? If not, why not?</li> <li>- Why is the patient being sent to the hospital or the health centre?</li> <li>- For which complications does he refer the patient?</li> <li>- What would make you change the treatment?</li> <li>- How was the patient burned?</li> <li>- What other things cause burns?</li> <li>- How can you prevent burns?</li> <li>- How can you prevent burns in the community?</li> <li>- How can the community help?</li> </ul>

\* Give to each method listed here a priority number in order to begin by the ones you consider the most important and leave aside those you may not have enough time to deal with.



# PART III



## Guidelines

for

adapting this document





GUIDELINES FOR ADAPTING  
this document to national situations

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1. INTRODUCTION

It is always easier to use a document as it is than to adapt it first and then use it. The present document, however, as already stated, has not been designed to be applicable, in its present form, to any specific national situation for the simple reason that health problems and tasks of health manpower vary from country to country.

Since it is difficult to write such documents and adapt them to local contexts, national health administrators may find it useful to follow a few principles to guide them in their adaptation work and to enable them to develop their OWN WORKING GUIDE for their own primary health workers (PHWs). Time has now come to facilitate the extension of primary health care (PHC) programmes and the work of PHWs in making available textbooks, manuals and guides specially made to answer local demands.

Let us hope that the following broad guidelines will facilitate the necessary adaptation of this document to national situations. It should be remembered, however, that this adaptation can only be done locally, by people well acquainted with the local situation, habits and culture, and that consequently only a simple methodology of adaptation will be given hereafter.

2. PREREQUISITES

The preparation of teaching/learning material for PHWs is part of the development process of primary health care in a country, but it is not the first step of it. It is only useful once a government has adopted a health policy to cover its population with a network of primary health care services integrated within the general health services, and has planned the activities to implement the programme.

It is important to consider the PHW as a link in a chain. He is the most peripheral element of a health team which could include both the medical assistant, or the head nurse, at the intermediate level of health care delivery, and the physician, general practitioner, at the higher level. Thus, the PHW must not be trained nor

asked to work in isolation and his performance should be closely followed up. Guidance and support are essential and routine responsibilities of the medical assistant or other responsible officer. The other echelons of the health services are there to take care of the cases which are referred to them, to provide logistics and in-service training as required.

An adequate supervisory mechanism and a proper referral system, as part of the primary health care scheme of the country, are prerequisites to the adaptation of this document to a national situation.

### 3. APPOINTMENT OF A WORKING GROUP

The appointment by the Minister of Health of a working group could be recommended. It should not consist of too many members but should be able to call in for any specific assistance any specialist or adviser considered necessary.

The members of the working group should be chosen among health administrators, Public Health physicians, nurse/midwives, medical assistants in charge of rural health centres, physicians of rural hospitals, sanitarians and community development personnel, all of whom will be involved in training tutors of PHWs.

The terms of reference for the group responsible for the adaptation of the WHO working guide and for its issue would be to follow the various steps of an adaptation process as indicated below.

### 4. ADAPTATION PROCESS

#### 4.1 Reviewing the implications of a PHC programme

This first step is primarily to ascertain that the prerequisite conditions for the preparation of teaching/learning material for PHWs have been met, namely, whether the country is ready to embark on the training of PHWs.

To begin to train PHWs before their place has been carefully planned and prepared would be a wrong approach: left to themselves or without proper supervision and guidance, PHWs may, in a few months, become harmful and lose the discipline and motivation necessary to perform effectively their duties.

The concept of PHC should be well understood and accepted by the health personnel, the community leaders and the population if their support and participation is to be obtained. No durable success can be achieved without their support and participation which is essential for the establishment of effective links between the most peripheral level where the PHW works, the intermediate level of the community health centre, of

which often a medical assistant is in charge, and the higher level of the district or rural hospital, where the physician is usually the overall leader of the PHC team.

#### 4.2 Deciding upon problems to be tackled by a PHW

Several constraints will influence this decision, the first of which is the role assigned to the health team. Since the PHW is a member of that team, the problems he will be called upon to tackle will depend on the problems the other members are requested to deal with. The functions of the various members of the team are complementary and interrelated. While surgery such as caesarean sections may be performed by the physician at rural hospital level and IUD insertions at rural health centre level by the medical assistant or the public health nurse or midwife, only simpler techniques can be entrusted to PHWs. Secondly, the educational level at which the PHW is recruited will influence the responsibilities which are attributed to him. The resources available, the level of development of the country, the supervisory and referral systems will also be important factors in the decision.

Because of his level of education and type of training, the PHW should not be overloaded. It may be envisaged that his functions be shared by two or even more PHWs. A male PHW may be placed in charge of the environmental aspects of the work and a female worker in charge of the maternal and child health aspects.

It has been suggested (Introduction p. 4) that the following criteria for the selection of priority problems should be considered:

- frequency of disease
- demand from the public
- danger to the individual
- danger to the community
- technical feasibility of action for a PHW
- economic consequences of the problem.

These criteria have served for selecting the 33 problems identified in the WHO working guide (Part I of the present document) and grouped under seven main headings, namely:

1. Communicable diseases
2. Maternal care
3. Child health - Nutrition
4. Accidents
5. Village and home sanitation

6. Other common ailments

7. Community development.

To this list could be added: "management" including among others: record keeping, reporting, referral of patients - depending on local conditions -, and serve as a framework or at least as a starting point for the working group to list the problems to be tackled by a PHW.

#### 4.3 Deciding upon skills authorized for a PHW

In view of the list of problems, decisions will have to be taken on the technical level desirable for a PHW to deal with each problem. Thus, for instance:

- what role should a PHW play in maternity care, delivery, etc., ...
- should a PHW know how to detect albumin and sugar in urine? (If yes, he should be given the means to do it)
- what medicines could a PHW use or give? (see part I, annex 1, page 236)
- should a PHW be allowed to give injections? if yes, which ones?
- should a PHW be able to perform a tooth extraction?
- which form(s) should he regularly fill in?

#### 4.4 Reviewing the job description of the PHW

The PHW's job and training will depend upon the problems he has to solve and upon his technical level. In order to be sure that the training of the PHW corresponds to the tasks he will have to perform ("task-oriented training"), the working group will write, or rewrite, the job description of the PHW checking it against the list of problems that has been agreed upon.

The job description will later serve as a basis for defining the learning objectives and elaborating the learning modules (see part II, chapter 4 "Examples of learning modules", pages 321 - 323).

The job description should appear as a list of tasks and duties, as shown by the following example:

The PHW will, in the community he is serving:

1. control COMMUNICABLE DISEASES by:

- undertaking the vaccinations requested by the health services following the instructions given by his supervisor
- identifying, treating, advising and, when necessary, referring patients with fever, diarrhoea and respiratory diseases
- preventing the spread of epidemics and notifying his supervisor accordingly.



2. provide MATERNAL CARE by:

- identifying pregnant women in the community, advising them and referring abnormal cases to the health centre or to the hospital
- preparing for delivery, assistance at childbirth, giving first care to the mother and baby, calling for assistance or referring cases when necessary
- giving post-natal care, advice and family planning information
- advising, treating or sending sick women to the hospital.

3. provide CHILD CARE by caring for both well and badly fed children and promoting NUTRITION education.

4. give PRIMARY CARE in case of burns, wounds, fractures and bites, and refer them when necessary.

5. concern himself with ENVIRONMENTAL HEALTH problems by advising the community on water supply, excreta and waste disposal, food protection and by promoting health education accordingly.

6. cope with the FOLLOWING HEALTH PROBLEMS by identifying, treating and referring cases when necessary: skin diseases, eye diseases, headaches, belly pains, pains in the joints, intestinal worms, weakness and tiredness, diseases of the mouth and teeth, lumps under the skin, mental and venereal diseases.

7. participate in COMMUNITY DEVELOPMENT ACTIVITIES by discussing community problems with local leaders and working out solutions for improving the life of the population.

8. REFER all cases and problems outside or above his competence.

9. REPORT regularly to his supervisor and to the community council.

This job description is only an example, but it may serve as a starting point for elaborating any other description of the main tasks and duties a community may wish to entrust to a PHW. Deletions and additions of problems will permit tailoring the PHW's job description to the priority needs of the population and of the health services. The new job description should be included as one of the first pages of the national working guide.

4.5 Identifying in the WHO working guide what problems are to be deleted and what problems are to be added

The working group will then compare the job description it has drawn up (or rewritten) with the above example of the WHO working guide. It will thus be easy

to identify among the 33 problems dealt with in the WHO document those which could be deleted and those which should be added. A new list of problems will be established including both the problems retained from the WHO document and the new added ones. The problems retained from the WHO document will need to be adapted to local conditions, and the new problems will have to be presented and detailed in the same way as those that have been retained.

#### 4.6 Adapting each problem retained from the WHO working guide

For each problem detailed in the WHO working guide which is included in the rewritten job description of the PHW, an important work of adaptation to local conditions is still necessary.

The name given to the problem may not be the most suitable one. For instance, the problem 2.4 "Family welfare" which mainly deals with family planning may need to be reworded. Some may prefer "Family planning", others "birth spacing". The same may apply to other problems.

The text itself has to be reviewed and adapted in such a way as to render it easy for the PHW to understand the contents. It should in fact be prepared in accordance with local habits and beliefs and with the standing orders of the Ministry of Health. To take the same problem 2.4 "Family welfare". the text should reflect the national policy on family planning and give the PHW information on what type of contraceptive is available and may be recommended in line with national policy. The example of "family welfare" has been given here, but similar adaptation is required of other problems. Certain kinds of foods are more readily available in some countries than in others, consequently the text for each problem dealing with nutrition should first mention what is commonly used by the population and try to make the best use of it, supplementing it when necessary, by other foodstuffs the people can easily afford.

17 different medicines have been listed in Part I, annex 1, and used throughout the WHO working guide. The names of the medicines given in this guide are common names, but national health authorities may prefer to indicate other names which are better known by both their health personnel and the public. The dosages and packaging may vary from one country to another and they should therefore be carefully revised and modified when necessary. Other medicines may be added especially, when possible, those recognized as being quite efficient, which are available locally, are safe, cheap and widely used. Great care, however, should be taken in the selection of medicines so as to avoid potential misuse, useless expense and abuse.



Attention should also be paid to the drawings included in the WHO working guide. Cows or pigs should not appear in countries where such meat is not eaten. Injection techniques should not appear in countries where the PHW is not allowed to give injections. Finally, drawings better reflecting national characteristics may be preferable to those illustrating the WHO working guide.

In many countries, standing orders have been drawn up for health personnel at various levels. Needless to say, they could not be mentioned in the WHO working guide, but should be included - after revision if needed - in the national document.

All this clearly shows the important adaptation work which remains to be done even for the problems retained from the WHO working guide for inclusion in the national guide.

Finally, it is stressed that there is no copyright protecting this WHO working document and that it can be used either partially or completely, adapted and translated if it can be helpful in a country and benefit its population.

#### 4.7 Presenting and detailing the new problems added

The new problems to be added should be presented in the national document in the same way as the problems which have been retained from the WHO working guide. To detail a given problem, for example a clinical one, it is suggested to place oneself in the position of a PHW who is intelligent, motivated and full of good will but with a limited education and training. Faced with the problem, the PHW looks for advice and assistance. He must find in his working guide directives to follow and indication of the efficient and safe action he is expected to take. Each problem can be outlined in a flow chart as indicated below in the case of problem 4.3

"Fractures":

# OUTLINE OF THE PROBLEM

Someone is hurt after a blow or a fall

Is a bone broken?

YES

NO

there is a wound

there is no wound

- wash
- disinfect
- penicillin
- aspirin
- evacuate

- put on a splint and bandage

- treat any wound
- aspirin

the thigh is broken

the upper arm, fore-arm, fingers or lower leg is broken

another part of the body is hurt

- make drink
- evacuate

- advise on how to immobilize

fever, or pain in end of limb

no fever, and no pain in end of limb

evacuate

take off splint after 6 weeks

patient is using his limb normally after 1 week

patient is not using his limb normally after 1 week

evacuate

refer

refer

refer

cure

refer

Thus, when the PHW suspects a fracture, he can find guidance in his book, remember what he has learned and comfort himself that he has taken the right decisions. The same process can be applied for any other problem.

It may not seem advisable to include in the working guide these diagrams, which are often complicated, of the various problems. However, the details they contain have proved useful in indicating the action required in a logical and simple manner.

The text should be reduced to a minimum and should give prominence to preventive measures and standing orders. It should be illustrated by simple drawings which are easily understandable by and familiar to any PHW. The contribution of a local artist would be appropriate.

Care should be taken to use the list of medicines already agreed upon and if any new product is needed it should be added to the list given in Annex 1 of the working guide.

When dealing with management problems such as record keeping, drugs and supply of contraceptives, reporting, referral, supervision, and others, the instructions given to the PHW should remain elementary:

For record keeping, two books could be provided to the PHW: one in which will be recorded his daily activities: visits, consultations and other activities with a record of the patients and of their illnesses; another in which drugs, contraceptives and other supplies will be recorded with the amounts received, distributed and remaining.

For reporting and referral very simple forms could be prepared which will facilitate relationships between the PHWs and the other echelons of the PHC team.

Recording and reporting standing orders will vary from country to country depending on the nature and amount of information a PHW will be able to provide. Similarly the format of the forms, their number, the frequency of the reports, and so on, will vary to a large extent and will have to be decided upon locally.

#### 4.8 Incorporating a simple evaluation mechanism

The objectives of the working guide are essentially twofold:

- to provide learning/teaching material during the first training periods of the PHW
- to serve as a reference book for practising PHWs.

To ensure that the national working guide for PHWs on which much effort will have been expended has achieved its objectives, it is essential to assess just how effective it is. To do so the working group will test it during a four to six month period in the actual field situation, in two or three centres or areas - preferably different as far as the geographic, ethnic and economic conditions are concerned. Observations will be made during and after training and the comments from the users will be collected on the basis of a questionnaire previously prepared, asking:

- how useful the working guide has been
- where it has failed
- what difficulties have been experienced in its use
- what corrections or modifications are required
- what additions or deletions are required
- for any other comments on the content, presentation, drawings, etc.

Collected and analysed, these comments and suggestions will permit the improvement of a new edition of the working guide and this process regularly repeated should lead in a few years to a working guide well adapted to the local conditions, serving as a precious tool for local PHWs.

## 5. UTILIZATION, TRANSLATION, PRINTING

5.1 The objective of the national adaptation of the WHO working guide for PHWs is to permit its utilization in the context of the PHC services of the country. In fact the working guide can be used in two ways: as material for training purposes and as reference book.

When it is used as material for training, the working guide is mainly intended for the PHWs. They will find in it listed a certain number of problems selected by the national health authorities as the most common and potentially harmful ones, and in the solving of which something can be done by a PHW. On the title first page of each problem a simple explanation is given of its meaning. For instance "pregnancy", "intestinal worms", "venereal diseases" are all technical terms, the meaning of which is obvious for an educated health worker, but most probably not for a PHW beginning his training.

Next a page is devoted to learning objectives, which are given for the benefit of both the PHW and his trainer. They indicate the tasks that a PHW will be able to perform at the end of his period of training which he was not able to perform before it. These objectives can only be defined once a job description of the PHW has been prepared listing the tasks to be performed. They will enable the PHW student to acquire a better understanding of his learning activities and to grasp the reasons which make it necessary for him to participate in this training course.

Then follow a few pages of text illustrated by simple drawings drawing attention to the preventive measures which should be taken to avoid the occurrence of the problem or its aggravation. The text also indicates to the PHW what sequence of



actions he should follow according to the situation he is facing. For instance, in case of a "respiratory disease" (problem 1.4), the PHW is instructed to ask: "for how long have you been coughing and spitting?" and according to the answer he receives - namely, either for a few days or for weeks or months - he should proceed in a different way.

In his daily work the PHW will have to use the few medicines or drugs put at his disposal, he will have to take the patient's temperature, apply bandages and possibly give certain injections. Indications to this effect appear in the annexes to the working guide, which will be expanded and supplemented - as required - by the national health authorities.

Although the guide is intended primarily for the PHWs, it is also essential that all those (physicians, medical assistants, nurses, sanitarians, administrators) who will share responsibility in the training be familiar with the content of the working guide: job description of the PHW, learning objectives corresponding to each problem, and annexes. Among the annexes there is one showing "anatomical diagrams", which is mainly intended for the PHWs' trainers. Some of these diagrams may be too complex and difficult for PHWs, while others may be inappropriate and this will vary from country to country. In any case they require explanations. They are nevertheless likely to facilitate the work of the trainers and to give them models for their blackboard drawings.

The PHWs should very carefully keep their working guide as it will be a precious companion to which they will refer to check the action that they should take, the dose of a medicine or to comply with the standing orders given. It should also be borne in mind that the content of the working guide represents only a basic training which must be progressively completed and continuously improved, as mentioned earlier. PHWs should be encouraged to write in it the results of their experiences, the advice of their supervisors, and to add additional information as will be provided to them by the health services.

5.2 The working document will be fully adapted only when it is translated into the local languages for use by auxiliary health personnel working at rural or suburban community level. Its translation is therefore a must, and since it is a difficult and delicate task, it should not be left to any translator. The revision of the translation should be made by health technicians fully aware of the local

pathology, of health and medical terminology, and of local usages, practices and names. International and bilateral assistance could perhaps contribute to the financing of such translation in a number of languages. One could suggest that a physician be especially appointed by the ministry of health, or the working group, for the translation and publication in each language. It is hardly necessary to stress the importance of accuracy since a translation or printing error in the working guide could bear dramatic consequences.

5.3 Once it has been adapted and translated, the national working guide should appear in a format convenient for its utilization by PHWs during their training period and later for reference and continuing education. It should be issued in a manner to enable it to resist the hard conditions of community work, and it should also allow for the addition of complementary information. A loose-leaf book would undoubtedly be a good solution as it would permit the addition of material prepared for subsequent training sessions, but it might be more expensive and not very hard-wearing.

In its present form, the WHO working document includes three parts of which only the first part entitled "working guide" is really intended for PHWs. The second part, "guidelines for training" is meant for the trainers of PHWs, and the third part "guidelines for adaptation", is of interest to the health administrators and trainers. It seems logical that only the first part should be handed to the PHWs, and that therefore it should be printed separately from the two other parts. The annexes on medicines and techniques should, however, be included with part one; but the opportunity of including or not the anatomical diagrams should be discussed, before a decision is taken.

It is suggested that the first edition of the national working guide - adapted as necessary - be printed in a cheap way for field testing. As a result of field testing, feedback information will undoubtedly make it possible to correct errors, modify the text or its presentation, and add important comments or material. All this will improve the second edition, render it more valuable, and justify its wide distribution.



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